



312066 0272 9364 2

MS. 255.11.974



ANNUAL REPORT

BOARD OF ECONOMIC ADVISORS

Albert J. Kelley, Chairman

COMMONWEALTH OF MASSACHUSETTS

Francis W. Sargent, Governor

1974

Government Documents
Collection
L25.11.4

U

8

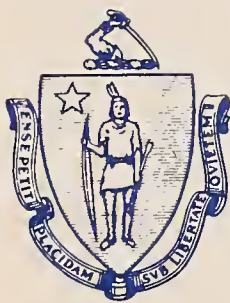
151

PUBLICATION OF THIS DOCUMENT APPROVED BY ALFRED C. HOLLAND, STATE PURCHASING AGENT.



Digitized by the Internet Archive
in 2012 with funding from
Boston Library Consortium Member Libraries

<http://archive.org/details/annualeconomicre1974mass>



ANNUAL REPORT

BOARD OF ECONOMIC ADVISORS

Albert J. Kelley, Chairman

COMMONWEALTH OF MASSACHUSETTS

Francis W. Sargent, Governor

1974

THE BOARD OF ECONOMIC ADVISORS COMMONWEALTH OF MASSACHUSETTS

The Board of Economic Advisors was created by Legislative Act (General Laws, Chapter 7, Section 37) on July 2, 1964. Its functions are:

- to make a continuing study of the economy of the Commonwealth
- to study and report on problems which the Governor may present to the Board
- to serve as a consulting body to State Government for economic affairs
- to render an annual report on the state of the economy to the Governor and the General Court

Albert J. Kelley, Chairman
Dean, School of Management
Boston College

Ann R. Blackham
President
Ann Blackham & Company

William H. Gassett
Vice President and Economist
Eaton & Howard, Inc.

TABLE OF CONTENTS

SUMMARY	4
ENERGY ECONOMICS	5
OVERVIEW OF THE MASSACHUSETTS ECONOMY	6
MASSACHUSETTS AND THE ENERGY CRISIS	10
VIEW OF KEY ISSUES IN THE ECONOMY OF MASSACHUSETTS	15
Real Estate in Massachusetts	16
Operating at the Margin in Massachusetts	19
Tight Money Plagues the Massachusetts Economy	23
The Impact of Price Inflation on Massachusetts	25
THE MASSACHUSETTS ECONOMY - DATA AND ANALYSIS	28
Fiscal Projections	29
Work Force, Employment and Unemployment	32
Personal Income and Cost of Living	48
Business Activity	53
Public Assistance	55
BIBLIOGRAPHY	60

SUMMARY

This report is published at a time of great economic uncertainty. Despite the profusion of economic projections, many spewing doom and gloom, there are no economic seers or guidelines in the current energy shortage situation. Current conditions involve a long-range petroleum shortage which has been building for several years, capped by an Arab oil embargo which has caused a short-term crisis. Economists have had no experience in such a situation, each is on his own, and many are making quite different projections from the same set of figures.

The impact on the Massachusetts and New England economy is quite different than is the case throughout the rest of the country. New England demands amount to 46% of U.S. energy consumption. About 75% of New England's electric power is generated by fuel oil compared with 14% for the country as a whole. Only 1% is by natural gas and 14% by coal. The northeast area of the United States is the largest consumer of oil products. About 90% of the East Coast's supply of oil is imported from overseas and about 47% is subject to the Arab oil embargo. We are particularly dependent on residual oil for use by utilities, industry and for the heating of large buildings. Our economy is highly leveraged by foreign oil imports, so it is critically important that Massachusetts receives its fair share of available petroleum resources.

This report assumes that Massachusetts will receive its fair share of petroleum products. If so, then we should be no worse off than the rest of the country. In fact, we might fare somewhat better because of our industrial concentration in the service, capital goods, and high-technology sectors.

Under these conditions we forecast a rate of growth in real Gross State Product of 1.5-2.0%, down from 4% in 1973. We forecast an unemployment rate of 7.5-8%, up from 6.8% in 1973. These projections are critically dependent on a lack of disruption in fuel supplies.

We are concerned about marginal industries already in a cost squeeze which will now be compounded by rising fuel costs. We urge State government to help them in every way possible.

Several specific recommendations are made for improvement of the industrial climate for current and future potential businesses. The outstanding deficiency in our economy is the lack of a Master Tax Plan. In order to stabilize our economic system and allow the public and private sectors to make viable future plans, a comprehensive, predictable tax structure is required.

Included in this report are articles contributed by four highly regarded economic spokesmen. Our thanks to William F. McCall, Jr., Edwin F. Estle, Jack C. Rothwell, and Wendell D. MacDonald for sharing with us their views of some of the key issues effecting the well-being of the Commonwealth of Massachusetts.

ENERGY ECONOMICS

The most important factor in any analysis of the Massachusetts and national economy at this time is the energy situation. It is now a certainty that the energy shortage will be with us for some time to come.

There is general agreement that this country now faces an economic slow down which will be aggravated by the energy shortage. Despite all the pronouncements and guesses from experts and others, there is also a consensus that the actual impact of the shortage is impossible to determine. Our view is that the data now being "spewed out" by econometric models in an attempt to factor in the energy short fall have little meaning. Furthermore, economists have had no experience with this sort of crisis. We cannot know the degree of success of conservation measures. We don't know how long the embargo will last, nor the kind of winter we face in the Northeast. We believe that if the Arab embargo persists beyond the first quarter of 1974, the less impact it will have on the economy as time goes on. Individuals and the economy have a way of adjusting, and while they still may have to live with certain inconveniences, it won't change our lifestyle in a major way on a short-term basis.

In the current economic situation there are no experts. No one really knows what will happen and current detailed economic forecasts are little better than pure guesses. Hence, in this report the Board of Economic Advisors chooses not to engage in this guessing contest.

Not only does the crystal ball gazing fail in this case because the impact of the energy shortage cannot be forecast, but we are not dealing in a totally free economy where the impact of the energy shortage is allowed to operate at will under free market forces. The impact of the energy shortage depends on the allocation systems developed at federal and local levels. It depends on the powers that are given to executive officials at federal and state levels and how these powers are used. It depends on how well allocations are made between various businesses and industries and how well they are enforced.

The Board of Economic Advisors has been monitoring the energy crisis for some time. It believes that the impact of the oil shortage will be quite pervasive throughout most of 1974. First, there is the obvious impact of the Arab oil embargo. Second, even when it is lifted, there will be a time lag until this oil again begins to feed through our economy. Third, the United States is short of refining capacity, and even with greater imports of foreign crude there is the question of the refinery bottleneck. Hence, the spot shortages of heating oil last winter, and gasoline in the summer of 1973. One thing seems certain; cheap energy is gone forever. Even with a return to more normal energy supply conditions, costs of energy for the consumer, for utilities and for industry will be substantially higher than they have been in the past.

If available petroleum supplies reach critical levels, we advocate immediate national rationing, particularly gasoline rationing. While there are many strong arguments for letting free market forces prevail allowing price to be

the determinant, the situation is much too serious to let this happen. The resultant high cost of petroleum products to New England could cause its marginal industries to be severely impacted. Therefore, petroleum shortages which cause a disruption in normal supply should be spread fairly throughout the United States by a rationing and price control system.

The Board of Economic Advisors believes that, if Massachusetts gets its fair share of petroleum products, our economy should do as well as that of the United States as a whole. In fact, it could even do somewhat better. In this report we have assumed that we will get our fair share. If we do not, then there could be very serious effects on our economy due to the high dependence of our area on petroleum as an energy source.

The reasons we believe that Massachusetts may be able to hold its own from an economic standpoint are manyfold. Massachusetts is moving more and more towards a service economy, servicing other areas of the United States and the world as well as its own needs. Moreover, financial and insurance institutions, educational institutions, and wholesale and retail trade establishments are becoming more and more important in the overall Massachusetts economy, and none of these areas are particularly large energy users per se.

Manufacturing in Massachusetts is heavily engaged in production of electrical and nonelectrical machinery with an increasing high technology, high value-added component. National projections show an increasing demand for capital equipment which is the business of many of our Massachusetts companies. We believe that, barring an unusual energy shortage, these industries should continue to grow even during the prospective slowdown that lies ahead.

Moreover, our high technology companies have weathered the storm of defense and space cutbacks and are now on a more stable commercial base. However, it is projected that defense orders will increase over the next year or two as the armed services develop more sophisticated strategic weapons and replenish their supply of tactical weapons already furnished or promised to Israel. Our defense industry posture should also improve because of increased military arms exports to foreign countries and a more expansive national policy in this area.

Tourism will undoubtedly be impacted but probably less so than other more remote sections of the country, such as Northern New England resort areas. Most resort and vacation areas in Massachusetts are within easy driving distance from New York and Boston. If gasoline shortages continue for an extended period, the tourism and recreation business will probably be hit as hard as any in Massachusetts. However, we believe that as other modes of transportation are brought into play, tourism may not be hit as hard as we expect, particularly as we look to the summer season.

OVERVIEW OF THE MASSACHUSETTS ECONOMY

For 1974 we expect the growth of the Massachusetts economy to slow

down because of general economic forces and due to an energy shortage. We do not, however, foresee a major recession in the Massachusetts economy, assuming again that the State receives its fair share of petroleum supplies. In terms of a real gross state product (GSP), we see the gross rate slowing from approximately 4% in 1973 to 1.5-2% in 1974. Again, this projection is critically sensitive with respect to fuel allocation. Growth could be zero or even slightly negative if Massachusetts does not receive its fair share of available national resources.

Unemployment should parallel the trend of the national level which is expected to increase from about 4.8% in 1973, to about 5.5% in 1974. Hence, in 1974 seasonally adjusted unemployment in Massachusetts should move on the average from 6.8% in 1973 to 7.5-8% in 1974. This could easily move much higher if fuel disruptions take place causing major plant shutdowns or interrupted work flows.

We wish to call attention to the prospects for so-called "marginal industries" in the year ahead. Marginal industries produce income and jobs but not high profits. They have already been hit by the high cost of doing business; increasing material costs, labor costs, transportation, taxes, and environmental regulations. They are now being hit by the skyrocketing cost of fuel. These higher fuel costs will squeeze their margins even more, thus placing them in a non-competitive position nationally. The State should do everything within its power to assist these industries insuring that they receive prompt and immediate fuel allocations and immediate attention to their requests for appropriate relief from various environmental regulations involving fuel.

In general, however, there is much in our favor with regard to manufacturing activity in Massachusetts — it is not generally energy intensive even though, of course, it is dependent on highly reliable energy sources.

While the energy shortage and resultant public policies occupy our economic attention, we must not lose sight of the steps which the Commonwealth has undertaken to improve the economic climate for all industries. Among the more important of these, Massachusetts has:

- a. Provided an employment credit incentive. A \$500 tax credit is allowed for employment of each individual taken from public assistance rolls to the extent that payrolls exceed 3% of prior years payroll.
- b. Extended the investment tax incentive. The 3% investment tax credit on tangible property has been extended through November 1978 for manufacturing and R&D corporations. It covers investments in tangible personal property including buildings.
- c. Provided a loss carry-forward tax provision. Losses incurred in other taxable years may be applied to current year income for a period of up to five years.
- d. Changed the formula for assessing taxes on multi-division corporations which operate in more than one state, lowering what they have to pay and thereby making it more attractive for them to relocate or expand in Massachusetts.

e. Provided a waste treatment incentive in the form of a 100% deduction for industrial waste treatment facilities and air pollution control. The value of such investment shall not be included in the tangible property base of excise tax.

Additional factors which need to be examined in 1974 include:

- The current inventory tax on tangible property. This tax acts as a deterrent to manufacturing firms in Massachusetts and provides a strong disincentive for large manufacturing and retail distribution centers.
- Tax treatment of Massachusetts-based insurance companies which will allow them to compete on an equitable basis with outside firms.
- The State's unemployment compensation system, particularly the taxing mechanism and schedules. While some improvements have been made in 1973 in unemployment compensation regulations, a broader overhaul is desirable particularly as we enter a time of increasing unemployment.

Massachusetts has a high cost of living as well as a high cost of doing business. Food costs are inordinately high since the State imports most food stuffs from outside the region with less than 3% in New England's economy and agriculture. Furthermore, Massachusetts is close to the end of the distribution line, hence, high transportation costs. Housing costs are relatively high, resulting from the heavy reliance on the real estate tax and the greater need for insulation and heating systems due to winter weather. This area feels not only the general price inflation but is double disadvantaged by the fact that prices of commodities going into the production of finished goods have tended to advance faster than prices of goods sold by manufacturers. The Commonwealth has relatively high family budget costs based on retail prices. In the three standard budgets of the Bureau of Labor Statistics, Boston is number one among mainland cities for intermediate and higher budgets and number two for the lower budget category.

Base closings will have some impact on the Massachusetts economy though with proper timing, phasing, and retraining the effects of these, can be minimized. The direct first round effect of base closings is a loss of approximately 11,500 jobs by 1975. It is estimated that 2,700 of these workers will probably leave the State to follow the relocation of their jobs. Many will elect to take early civil service retirement which, while not offering the same wage, will enable them to maintain a comfortable standard of living and not enter the unemployment roles. With appropriate retraining through the phase-down period and the large number of available jobs (despite the paradox of a high employment rate), it is believed that the remainder of these workers, many of them highly skilled, can be reasonably well absorbed into the Massachusetts economy without a major impact on unemployment statistics or the economy. With proper development, the economic impact from converting closed-down bases to other commercial and industrial uses should be beneficial in the long run.

In last year's report, the Board of Economic Advisors cited the rapidly increasing costs of State government and pointed out that they were increasing at a rate approximately twice as fast as the rate of gross state product. (On

the average over the last several years, the rate of dollar growth of State government has been about 15% per year, while the dollar growth of gross state product has been at an average annual rate of approximately 7% per year.) The Board is gratified to note that the State government, executive and legislative, has made vigorous attempts to reduce the rate of growth of the State budget, and in fact, the Governor called attention to this fact in his 1973 legislative budget message. We continue to feel that holding down the growth rate of State expenditures and thereby the tax rate is one of the most effective ways of freeing up funds for investment in the business and industrial sector of the Massachusetts economy, thereby insuring its health and resultant jobs.

Massachusetts continues without any form of Master Tax Plan, a situation which is disappointing to most of its citizens. While most taxes (e.g. sales tax, income tax, gasoline tax) are fixed by law, the property tax goes on uncontrolled and unabated. Even if the State, through its current efforts, succeeds in significantly reducing the rate of growth of State expenditures and thereby required State revenues, the property tax levied by the various communities can stifle business, discourage new industry, raise the cost of housing, and even cause an exodus of population from Massachusetts. A Master Tax Plan tying together in a systematic way all sources of revenue for state and local governments is the *most pressing deficiency in the Commonwealth's economy at this time*. If Massachusetts is to put its economic house in order and achieve a stable economic climate for planned industrial growth, it must have an integrated, comprehensive tax system.

Much of the business and industrial growth in Massachusetts has been home grown. The State takes pride in its Route 128 complex, its venture capital companies, and its pioneering financial institutions such as mutual funds and investment management companies. If the State is to continue to grow, it must seek investment from outside the State. That is, it must seek to attract new industries and financial institutions from other sectors of the United States and indeed from the entire world. Many pundits have deplored the negative factors in the Massachusetts economy and proposed marginal solutions to eliminate these negative factors. However, we believe the greatest growth in the Massachusetts economy can be achieved by recruiting institutions and investments from outside the State and creating a positive receptive business climate which will attract and hold them.

A well-educated, well-trained labor base, renowned educational institutions, an entrepreneurial spirit, and a strong technology base, are all major positive factors in Massachusetts which can attract divisions of national corporations or financial institutions and international foreign investments. The Board believes the real potential for business, industrial, and economic growth lies in emphasizing these positive factors and building on our strengths. For example, Massachusetts is the home of mutual funds and investment management. Total assets of funds is about \$14 billion or 30% of the industry. There are 38 fund operators with about 100 funds. In addition, there are over \$3.5 billion of exchange funds and real estate tax shelter media. In the investment management field, excluding funds, the total dollar

amounts, including that of our counsel firms and our banks, may well exceed \$25 billion. Also our law firms have in their trust departments large sums under management.

Massachusetts has the potential, with aggressive leadership, not only of becoming a world high technology center but an international investment and banking complex which will increase our economic strength directly and provide additional sources of local business investment and capital as well.

MASSACHUSETTS AND THE ENERGY CRISIS

The Board of Economic Advisors offers the following brief analysis of the energy crisis. Much has already been written as to why the crisis exists, what it means in terms of its economic impact, and how it may change the life style of the American people. Already, Federal, state and local governments are developing plans to ease the shortage both through voluntary and involuntary programs to ration supplies as fairly as possible and to conserve as efficiently as we can the supplies of energy which may be available to us.

In order to put things in perspective for our citizenry, and for those who will be engaged in carrying out a program of rationing and conservation, we wish to make the following statements that bear on the problems that face us:

There are two energy shortages — (1) The acute shortage which began with the Arab embargo in October 1973 and which is certain to persist for the foreseeable future until the embargo lessens and until the shortage of domestic refining capacity is corrected. The situation has been aggravated because the embargo came at a time in the winter months when demand for petroleum products is at a seasonal peak. (2) The chronic shortage which results from our increasing dependence on imported oil as we look down the road - aggravated by the fact that most of these imports must come from the Middle East which is becoming an increasingly less certain source of supply - hence, the President's plan of "Project Independence" to make us self-sufficient in energy supplies by 1980.

One can not be dogmatic at the present time as to how serious the shortage will be over the near future. There are too many imponderables and question marks. The President stated last November that the nation may be short anywhere between 11% and 17% of our needs. On this basis, New England could find itself short by over 35% as we approach the February-March period. The Federal Energy Office in November 1973 estimated the first quarter 1974 shortfall at 3,271,000 barrels per day. However, because of the success of conservation measures in recent months, greater imports (leakage) than anticipated and a greater draw-down of inventories, the likely shortfall is now estimated at 1,250,000 barrels per day. Hence, we will enter the spring season in better shape than expected. This does not mean that we can ease up on conservation measures but it does suggest that we can avoid a crisis in heating oil during the rest of the winter, and also avoid involuntary gas rationing. Measures proposed to ease the shortfall between now and the

winter of 1974-75 include: (a) Open up production of the Elk Hills Naval Petroleum Reserve resulting in added output of 570,000 barrels per day of crude oil within six months. (b) Produce crude at maximum efficiency rating from five fields in Texas adding 400,000 barrels per day in six months, (c) forced conversion of oil and gas to coal by utilities, (d) use of rationing authority if necessary by developing a priority system based on importance to national interest, (e) develop either mandatory or voluntary systems for conserving fuel oil for heating, gasoline for driving, and industrial fuel for running plants.

(3) Arab oil production was cut back 25% from September levels for countries "hostile" to Arab interests and for January 1974 was increased to 15% below last September for certain countries including Japan. The reduced output in the Middle East works greater hardships on Europe and Japan than on the United States. Europe's dependence is about 65%; Japan's 50% and our dependence about 5%-10%. Presently, because the Arab nations claim we have been extremely favorable to Israel's cause, they have shut us off from all direct and indirect shipments of crude and products. They have also applied the same treatment to Holland. We cannot know at this time whether the Arab countries will ease up on the oil embargo to the U.S. or not. However, we are encouraged that before spring the Arab embargo may be substantially lessened for us due to the success which our Secretary of State, Henry Kissinger, is having in hastening an Arab-Israel peace settlement. King Faisal of Saudi Arabia, has intimated that no loosening of the embargo will occur until Israel has relinquished the territory acquired in 1967. However, even if the embargo were eased, it would take at least a month or more for it to have any easing effect on our energy shortage because of shipping time.

(4) The degree of severity of the shortage on the American economy and its people in the months ahead depends on many imponderables - how successful the 55 mile per hour speed limit will be; the degree of cooperation in reducing thermostats to a maximum of 68 degrees in the next two months, and limiting the use of air-conditioning this coming summer to 80 degrees; whether Arab nations will ease the embargo; how successful will be the plant conversions from oil and gas to coal; and whether environmental standards will be lowered sufficiently so that utilities and industry can use greater quantities of high-sulphur coal and residual fuel.

(5) Our current view is that regardless of the several prospective means for rationing and conserving energy over the next six to twelve months, a shortage will persist demanding from our state government and its citizens the fullest measure of cooperation. New England is a particularly vulnerable area. For example, for the New England region, about 75% of electric generation is by fuel oil compared with only 14% for the country as a whole. On the other hand, only 1% is by natural gas and 14% by coal. The northeast portion of the United States is the largest consumer of oil products. Furthermore, its lack of "energy" natural resources, refineries, or deep water terminals serve as a supply deterrent. The area is also subject to the whims of "old man winter." The past two winters have been warmer than normal. Obviously, if

this winter is even normally cold we will need more fuel than a year ago - and if we get a colder than normal winter we can be in real trouble - requiring the closing of schools, shorter hours for industry, rationing of gasoline, and a strict rationing system based on essentiality. So far this winter is running 5-10% warmer than normal (through January 1974). Since refineries will be forced to run unusually high yields for fuel oil and distillate between now and April 1974, it will not be possible to build up adequate stocks of gasoline as we approach the summer season. Hence, even though we might get through the winter without gasoline rationing, it may be required next summer. This will be particularly bad for New England economically, for it will sharply reduce vacation travel and leisure time activities. A partial offset might be that New Englanders would stay closer to home, but the total spending stream in this area would, in our opinion, be sharply reduced. New England has also become in recent years, a popular winter resort area. It is quite likely that business at ski centers is likely to suffer not only because of a tight gasoline market, but also because of a shortage of heating oil.

(6) Economists have for some time been estimating that 1974 is likely to be a year of business slowdown - that spending for consumer durables such as autos and appliances will be off perceptibly and that housing starts will be off considerably. Spending for consumer soft goods and services is expected to do well, while outlays for plant and equipment will show a good increase over 1973. Our net export position is also expected to improve because of a more favorable competitive position of exports due to the devaluation of the dollar. Preliminary estimates for Gross National Product in 1974 suggest a 1% gain in "real" growth compared with an estimated 6% gain in 1973. The *big* unknown in the equation is the likely effect of the energy shortage on general business. Various calculations have been made - all of which are in the nature of guesses - this because we have no experience with this kind of phenomenon. The best guesses at the moment are that a 1% decline in energy supply will reduce "real" economic growth by a similar amount. Hence, if the shortage persists through 1974 it might bring about a recession. This is not a prediction, but is suggested to emphasize the extremely sensitive situation which we face. Massachusetts and the New England area usually experience less of a downswing than the rest of the country during recessionary periods, but this coming year could be relatively more serious for our area should gasoline rationing be necessary.

In the preceding, we have been discussing the near term energy crisis - one brought to a head by the Arab oil embargo. It should be emphasized at this point that long before the embargo of Arab oil became a reality, a shortage of energy had been expected this winter - and perhaps if not an actual shortage, at least an extremely tight supply-demand picture. This brings us to the second kind of shortage - the one which has prompted the President to proclaim a program of "Project Independence." In recent years this country has become increasingly dependent on imported oil. A few years ago imports amounted to 10% of domestic demand. Currently, the dependence is nearer

25% and by 1980 even with two million barrels of crude oil available from the North Slope and with total demand about twenty-four million barrels per day, we will be dependent on foreign crude and products to the tune of about 50% of our needs. Why have we got ourselves into this predicament? Following are a number of reasons which have resulted in a deteriorating domestic energy posture.

- (a) Federal regulation of natural gas prices has kept prices low, thus creating a rapid increase in consumption of this clean fuel, but discouraging domestic exploration to develop new reserves because of the inadequate profit level and subnormal return on investment. The same situation has prevailed with respect to a buildup in domestic crude oil reserves. The result has been that in recent years with demand rising, we have been using up more of our oil and gas than we have been finding each year.
- (b) Ecological and environmental factors have slowed down the development of oil and gas reserves offshore California, and in the Gulf of Mexico. It is only quite recently that exploration has been encouraged by speeding up lease sales in the Gulf of Mexico. So far, exploration offshore California where potential reserves of oil are said to be large, is not being encouraged.
- (c) Environmentalists have been responsible for a long delay in bringing oil from the Alaskan North Slope by pipeline to Valdez in southern Alaska. Oil was discovered at Prudhoe Bay, Alaska in the summer of 1968 and only recently has a bill been signed by the President to build a line with the prospect that oil will begin to flow in 1978 or 1979. In our view, this is a disgraceful procedure for a country that has been depleting its reserves as rapidly as the United States. Alaskan oil will not be the cure-all for our long term energy shortage, but the two million barrels per day of crude which will be produced in 1978 or 1979 would look pretty good to us if we had it today.
- (d) In the past few years a shortage of refining capacity has threatened, so that today even if we could get all the crude oil we needed, we could not translate it into refined products. There may be some truth to the fact that oil companies have been remiss in not adding to refining facilities. However, one reason why this has been so is that refining and marketing have not been particularly profitable areas. Competitive factors have severely limited refiners' margins and the return on investment. Refinery construction has also been discouraged by activities of environmentalists and other groups. Everyone is for more refining capacity as long as it isn't located in their own neighborhood. In recent months, orders for new refineries and for refinery additions have increased in great volume - but it will take from two to three years before these units can come on stream. Incidentally, we strongly recommend that the New England state governments encourage the construction of at least two large refineries in the area, and develop plans to study the

possibility of building one or two deep water terminals on the New England Coast. Other reasons for hesitancy in spending money for new refining capacity have to do with the uncertainties as to what kind of gasoline would be allowed to be produced and what would be the source of the crude oil to be run through. Refineries are built to produce certain kinds of products and to use certain types of crude oils.

- (e) We must formulate a strong and effective national energy policy. Government must join with private industry to sponsor crash programs for greater use of our vast coal reserves, for developing our shale oil reserves, for research and development of coal gasification, for speeding up the construction of nuclear power plants, for encouraging exploration offshore California and the East Coast, and for exploring the economies of solar energy. The days of cheap energy are behind us. Prices for crude oil in the Middle East countries are skyrocketing. Cargoes of imported crude are already priced as much as \$10 to \$11 per barrel, and some have reached \$14 or higher. This contrasts with a domestic price of \$4 to \$5 per barrel. Product prices are rising, accompanying the advance in the price of the raw material. Since increases in the supply of energy are perhaps the single most important factor in the world's economic progress, any set of forces which slows down the rate of gain in energy supply is bound to slow down the rate of "real" economic gain. Furthermore, increases in the cost of energy can not help but add to the world's inflationary pressures.

State government, as well as Federal government can help to meet the challenges created by the energy shortage by taking a positive and affirmative stance in assuring its citizens that it is working in the cause of larger and more efficient supplies of energy. Ecological and environmental demands should be balanced against economic considerations. If deep water terminals are needed off the East Coast to handle the unloading of large tankers, then while on the one hand careful consideration should be given to the likelihood of spills, on the other hand, it should be emphasized that it will cost 50% more per barrel of crude to unload from an 80,000 ton tanker than from a 350,000 ton tanker. Today no East Coast or Gulf Coast port, for that matter, can handle tankers over 80,000 tons.

**VIEW OF KEY ISSUES IN THE
ECONOMY OF MASSACHUSETTS**

REAL ESTATE IN MASSACHUSETTS

by

William F. McCall, Jr.

The year 1973 produced mixed results for the various segments of the real estate sector in Massachusetts with indications that the same trends will continue into at least the first half of 1974. Highlights of 1973 and the outlook for 1974 are:

—Industrial real estate: 1973 was an excellent year, described by some as reaching “boom” proportions. The bullish developments have brought a strong resurgence along Route 128 and vigorous growth along Interstate 495. The favorable conditions are expected to carry well over into 1974, provided major adjustments don’t have to be made to forecasts for plant expansions and the national economy.

—Office space: The vacancy rate for office buildings in the Boston area showed an increase during 1973, but was far below those for other principal cities in the country. The vacant space can largely be found in older buildings, many of which have not been upgraded. The demand for new office space at prime locations is still brisk and we expect it to continue to be during 1974. New construction is needed to meet this demand, especially if Boston is to attract corporate headquarters to the city.

—Residential, single homes: Sales were extremely strong during the first three quarters of 1973, but slumped badly in the last quarter due to a severe squeeze on mortgage funds. Expected changes in federal monetary policies—namely interest on short term bonds—should ease these conditions by spring for the existing single family home market, but the effects on new construction—that is the availability of new homes—will extend into the summer.

—Residential, rental: This market is undergoing critical dislocations, resulting in a growing shortage of rental housing stock. New construction has dropped off considerably and some existing stock is being converted to condominiums as a result of pressures from the state’s enabling rent control law, environmental protection requirements, anti-owner legislation, tight money, high property taxes and high construction costs. The situation is further aggravated by the shelving of HUD subsidy construction programs. A consistent bright spot is the program of the Massachusetts Housing Finance Agency, but this alone cannot meet the need for low and moderate income housing.

Unquestionably, the overriding concern of real estate interests in 1974 will

be the impact on developments from state environmental protection laws and particularly the manner in which they are implemented. The industry is beset with confusion over just what are the precise requirements, and this confusion seems to extend to the very governmental agencies that are charged with administering the laws. Sharp clarifications are required in 1974, either by legislative action or executive order now that the Supreme Judicial Court has refused to consider and rule on a suit challenging the ambiguity of the Environmental Impact Statement Law.

At the time of this writing, it is too early to determine just what will be the impact on the real estate industry from the energy crisis. It could be profound.

Other continuing sources of concern are high property taxes, low standards of license requirements for brokers and salesmen, and rent control. It should be noted that Realtors in Massachusetts will mount a statewide campaign in 1974 to seek legislative relief from exorbitant property taxes by attempting to broaden the distribution of the state's tax base as well as closing the open-ended feature of the property tax.

For a more detailed look at developments within the industry, a good starting point might be with industrial real estate since it offers the most optimistic outlook.

A number of key people in this field report that 1973 was one of their best years. These subjective observations are buttressed by statistics compiled by Ryan, Elliott & Co. showing that available industrial space—manufacturing, R & D, and warehouse—declined substantially with the most dramatic decrease in manufacturing space.

During the year most of the industrial space vacated by R & D firms in the recession of the early 70s and as a result of cutbacks in defense and space programs has now been absorbed, particularly around the Route 128 perimeter. One industrial broker pointed out that what is encouraging about the new companies moving in is their diverse nature and the fact that they are producing mainly for commercial markets rather than being dependent on government programs. Massachusetts, particularly the Route 128 area, shows a healthy resiliency for bouncing back quickly as many of these companies were not even in business five years ago.

The one weakness in this over-all industrial market pattern is inner-Boston where conditions remain quite soft. High property taxes, the high cost of space and congested transportation facilities make the inner-city harder to sell. However, the city is aware of these problems and through the Economic Development and Industrial Council is attempting to overcome them.

The momentum of activity now being generated in industrial real estate is expected to carry well into 1974 and perhaps through the entire year—again, subject to the performance of the national economy. In fact, it has spurred a number of new speculative building projects. These could eventually balance out the high demand, but at the moment it's a seller's market.

Despite a higher than average vacancy rate, the office space market is in sound shape. More and more companies are willing to pay higher rates for

quality space at choice locations. This, however, is the short-term outlook. The long-term view is considerably clouded by the murky environmental questions which will preclude the feasibility of some projects and at best lengthen the lead time for construction of other ventures.

In Boston, the situation is further unsettled because of the failure to get Park Plaza and 60 State Street projects off the ground. The circumstances surrounding these two developments have eroded investor confidence according to Real Estate Editors William Dorman of the Boston Herald American and Anthony Yudis of the Boston Globe. And, this could have long-range implications.

Residential real estate presents the most gloomy picture. The shortage of mortgage funds has put a marked crimp in the single family home market. In response to mounting pressure, Congress and the Administration are expected to act on relieving this situation. As noted earlier, this should restore a great degree of normalcy to the existing home market. But, because of the long lead time required between financing of new houses and their actual construction it should be late summer or even fall before this segment of housing will be back in the market.

The rental housing industry is in tough shape, and 1974 will be a year of profound challenge to government housing experts. It is clear that old "solutions" such as HUD's construction subsidy program and rent control do not work. Chapter 842, the state's enabling rent control law, comes up for extension by the legislature in 1974, and it should be abandoned. Rent control does not produce needed housing. In fact, it is counter-productive in this respect because it discourages investment in the construction of new housing. In those cities that have implemented rent control, the trend is toward condominium construction as well as the conversion of rental units to condominiums. The net effect is a shrinkage in available rental stock.

Alternatives must be found. Otherwise, a real crisis in low and moderate income housing will quickly develop. There are no encouraging signs from Washington on this count. A single subsidy plan proposed by William J. White, Executive Director of the Massachusetts Housing Finance Agency has been filed as Federal legislation and it has sound promise if it can attract the necessary support.

MHFA's program stands as a rare success story in an otherwise bleak picture. In the four years since it started, MHFA has been responsible for adding 20,000 units of comfortable, decent housing to the scene through loans of \$440 million—and at no expense to Massachusetts taxpayers. Some of the projects have won awards, and the program itself has been cited as one of the most outstanding in the nation. It demonstrates that workable programs can be devised.

In summing up, the destiny of the real estate industry is being more and more controlled by the government, and it's important that Realtors become more active in the governmental decision-making process.

OPERATING AT THE MARGIN IN MASSACHUSETTS

by
Edwin F. Estle

The Massachusetts economy has been growing relatively slowly over the past two years - a period in which the national economy was making substantial gains. Two overall measures of economic performance, personal income and nonagricultural employment, clearly demonstrate this disparity.

Rates of Change

	Personal Income		Nonagricultural	
	<u>US</u>	<u>Mass</u>	<u>US</u>	<u>Mass</u>
1971-1972	+8.9	+7.5	+3.0	+0.5
1972-1973*	+7.4	+5.7	+4.4	+3.4

*First six months at annual rate.

Sources: Personal Income, U.S. Department of Commerce
Nonagricultural Employment, U.S. Bureau of Labor Statistics
and Federal Reserve Bank of Boston.

This slower growth, however, needs to be put in perspective. Massachusetts is joined by all of the Northeastern section of the nation in trailing the national average. The rapid growth nationally has been in the Southeastern, Southwestern, and Far West regions of the country in this expansion, as the following table on personal income growth shows.

Mr. Estle is the Economist of the New England Telephone and Telegraph Company.

Rates of Change In Personal Income

	<u>US</u>	<u>N.E. Less Mass</u>	<u>Mass.</u>	<u>Mideast</u>	<u>South East</u>	<u>South West</u>	<u>Far West</u>
1971-72	+8.9	+7.6	+7.5	+7.0	+11.4	+10.2	+8.3
1972-73*	+7.4	+7.6	+5.7	+6.7	+6.3	+9.1	+8.5

*First six months at annual rate.

Source: U.S. Department of Commerce.

Much the same pattern would prevail if some extended the analysis to the last ten years, as was recently done by the Conference Board in its *Road Maps of Industry* No. 1723.

It is also clear that regional per capita income differentials are narrowing over time. New England (and Massachusetts) has been declining toward the national average, as have the Mideast, Great Lakes, Far West since the 1940's. At the same time the other regions such as the Southeast and Southwest have been rising toward the national average. This pattern is documented in the August, 1973 *Survey of Current Business*, page 41.

Thus the Bay State is enmeshed in a nationwide movement of population, industry, and markets away from the state to other parts of the nation.

This suggests that the state may take actions that will improve marginally, but that it is unlikely that it can reverse this current trend by its own efforts.

Having said this, it is still clear that Massachusetts is trailing its neighboring states (New England less Massachusetts is showing a faster personal income growth in the above table). Improvements at the margin are clearly needed.

One of the disturbing elements in the Massachusetts economy is its lackluster performance of retail sales. Relative to personal income, retail sales have been falling in the Bay State since 1970, whereas they have been rising nationally over this time period as shown in this table.

Retail Sales As a Percent of Personal Income

	<u>Massachusetts</u>	<u>United States</u>	<u>N.E. less Massachusetts</u>
1970	46.4%	46.5%	46.2%
1971	45.0	47.3	48.7
1972	43.7	47.7	47.8
1973 first half	43.6	47.5	45.8

These differences are not inconsequential. Massachusetts this year would have retail sales 9 percent higher, or \$1.144 billion at an annual rate, than they actually have been if retail sales relative to personal income were at the national average.

As a result of this relatively poor performance of retail sales, employment growth in the wholesale and retail trade sector in Massachusetts has been virtually nil since 1970. Nationally, job growth has continued in this industry, moving up 7 percent from 1970 to first half 1973.

Wholesale and Retail Trade Employment, 000

	<u>Massachusetts</u>	<u>United States</u>	<u>N.E. less Massachusetts</u>
1970	496.6	14914	438.2
1971	498.6	15142	446.6
1973 first half	496.7	16024	473.8

Again, this difference is important. For instance, if Massachusetts had had the same relative growth in wholesale and retail trade employment as the nation since 1970, nonagriculture employment could have been 1.6 percent, or 37,000 higher than its current level.

The rest of New England does not show the same pattern. Relative employment growth in wholesale and retail trade in the rest of the region has actually been higher than that of the nation. Moreover, retail sales relative to personal income had risen like the nation in 1971 and 1972, though 1973 shows a decline.

The same sort of employment pattern exists for the two other industries in the services category: finance - insurance - real estate and services.

Rate of Change In Employment, In Wholesale &
Retail Trade, Finance, Insurance
Real Estate and Services

	<u>Massachusetts</u>	<u>United States</u>	<u>New England less Mass.</u>
1970-71	+0.8	+2.0	+2.9
1971-72	+0.4	+3.6	+3.9

Obviously, something is holding the consumer sector back in the Bay State; some possibilities present themselves. First, it could be that a relatively greater proportion of personal income is going into taxes and/or personal saving. Secondly, Massachusetts residents may be buying in contiguous states, importing goods and services.

The data necessary to pinpoint the answers are hard to come by. For instance, it would be desirable to have disposable personal income by state to help answer them, but a check with the U.S. Department of Commerce indicates that they no longer make such estimates, believing that their earlier attempts — last in 1969 — were invalid. To determine the level of personal savings in the state is also difficult and far beyond the scope involved in this paper.

We only offer a hypothesis; it may be that Massachusetts residents are saving at a higher relative proportion out of income than residents in other states because of caution stemming from a number of adverse — real and imagined development in the state over the past few years. Among these would be the slow down of the defense oriented industries along Route 128, the announced closing of military bases, the reported high unemployment rate of the state, and the publicity given to the state's problems from a number of sources and reported in the communication media.

If this hypothesis were tested and formed valid, a number of corrective measures might be instituted to stimulate the consumer sector such as educating the public that good jobs are going begging, that the economy is still growing, and that they can have confidence that it will still continue to grow in the future. If, on the other hand, the hypothesis were rejected and if the short fall in retail sales relative to personal income could not be shown to be caused by higher personal taxes, then importing of goods across the state's borders would seem to be the answer. Then another set of measures might be called for to make the state's goods more attractive relative to those in other states, such as charging tax rates on retail purchases, etc. Such analyses and corrective measures as proposed above would *not* change the trend pattern of the Massachusetts economy, so that it would be growing as fast or faster than the national average. However, such steps might help the state marginally, and keep it growing at about the pace of the rest of the Northeast.

TIGHT MONEY PLAGUES THE MASSACHUSETTS ECONOMY

by Jack C. Rothwell

The year 1973 was marked by a severe squeeze on the Commonwealth's financial institutions, a squeeze that sharply curtailed mortgage funds available to prospective home buyers. The squeeze also forced the rationing of credit to many potential business borrowers.

The reasons for the squeeze, and its severity, can be summarized in a single sentence: short-term interest rates rose to the highest levels since the Civil War, and financial institutions, which are restricted by law as to the rates they may pay, found themselves at a competitive disadvantage with open market rates. As a result, funds flowed out of financial institutions and into such money market investments as Treasury bills, which at one point yielded over 9%. This outflow severely restricted the ability of institutions to make mortgage and business loans.

A few statistics illustrate the dimensions of the squeeze. From July through September funds were drained out of savings banks at an annual rate of almost 5%. To put this figure in perspective, savings bank deposits *increased* a little over 12% in 1971 and by 11% in 1972.

Meanwhile, commercial banks, as well, lost savings deposits; funds flowed out at an annual rate of 5.4% from January through August, restricting the lending ability of these institutions, too. With mortgage funds drying up, mortgage rates soared, and the percentage required for down payment rose markedly. Indeed within the past 18 months, mortgage rates have increased from around 7 1/4% to as high as 9 1/4% at many mortgage lending institutions in the Commonwealth. And though data are not available for the direct impact of monetary stringency on housing starts in Massachusetts, some inferences may be drawn from starts in the nation as a whole. For the entire country, housing starts declined from a high of almost 2.5 million units in January to around 1.76 million units in September, a decline of almost 30%.

The problem of tight money is not over yet. Though interest rates have declined in the last several weeks, substantial reflows of funds into savings and commercial banks have not yet begun, and even when reflows *are* resumed, mortgage lenders will be cautious at first in increasing substantially their mortgage commitments. Lenders will want to be certain that a trend is definitely established and they will want to replace liquidity drained away during the deposit outflow. Thus mortgage money may not become readily available at declining interest rates until late spring or early summer of 1974, even assuming that tight money will run its course soon. Weakness in hous-

Mr. Rothwell is Vice President and Economist with the New England Merchants National Bank

ing, superimposed upon the general slowdown in economic growth expected in 1974, can only serve to intensify problems in the State's economy, an economy already marked by higher than average joblessness.

Economic policy makers in the Commonwealth might be relatively less concerned if the problems of tight money were an isolated and nonrecurring one. The fact is, however, that tight money has hit the Commonwealth periodically in the past decade on an average of every two to three years. For example, the height of the 1966 credit squeeze (December, 1965, through October 1966), savings deposits of Massachusetts' mutual savings banks increased by less than 1%, compared to gains of 7.5 to 8% during typical years of the early to mid-1960's. Actual *declines* in savings deposits occurred during almost half of these months, and, equally disturbing, the small net gain over the entire 11-month period was less than one quarter of the gain for the nation as a whole.

During the 1969-1970 credit crunch, Massachusetts savings banks fared better because they paid higher rates than those permitted savings banks in other states. *Commercial* banks in the Commonwealth, however, were hit particularly hard. From December, 1968, through January, 1970, (the most difficult months of the squeeze), Massachusetts commercial banks lost almost one third of their total time and savings deposits. By way of contrast, commercial banks in the nation as a whole lost less than 10% of the time and savings deposits they held.

Periodic bouts with tight money will probably continue as a fact of life. However, savings banks and savings and loan associations in the nation are somewhat more insulated from the effects of tight money than are savings banks in Massachusetts. Other institutions are members of the Federal Home Loan Bank System and thus may borrow from Federal Home Loan Banks during periods of monetary stringency. This assures a more even flow of mortgage funds, not an uninterrupted flow, of course, but at least a buffer against the most severe constraints of tight money.

THE IMPACT OF PRICE INFLATION ON MASSACHUSETTS

by

Wendell D. Macdonald

The commodities which Massachusetts buyers purchase for use in industrial production have inflated in price faster than the commodities which the State produces and sells. When a single seller is faced with price behavior marked by sharply rising costs of goods purchased and a more moderate price increase for the commodities he markets, the unfavorable squeeze is obvious. Something similar can and does happen to a State, to a region, or to an entire nation for that matter. Massachusetts imports food and raw industrial materials, both of which continued to experience acute inflation during 1973, and it exports to the rest of the nation manufactured goods for which the price rise has been smaller. Furthermore, at retail Massachusetts is disadvantaged by high living costs relative to other areas, mainly attributable to food and housing prices.

These impacts are manifest in two ways—in wholesale prices paid by the State's producers and in retail prices paid by the Commonwealth's consumers.

First, materials prices which flow into the production costs of Massachusetts' factories have risen faster than prices of finished manufactured goods. This divergence in price trends has become more pronounced lately with the gap widening since 1967, at first gradually and then drastically especially since early 1972. The wide diffusion in the movement of commercial transaction prices for the various commodity groups in the BLS Wholesale Price Index documents this phenomenon. The prices of materials as inputs into manufacturing have increased much more sharply than the commodities which are the outputs of the Commonwealth's factories.

Second, the Massachusetts consumer buys commodities for day-to-day living at higher prices than are found in other states. For example, the Boston City Worker's Family Budget of \$13,576 for a family of four at the intermediate level is higher than in the other 37 U.S. cities studied.

Wholesale Price Behavior

The All-Commodities Wholesale Price Index was 40 percent higher in September 1973 than six years earlier, with the bulk of the gain occurring in 1972 and 1973. Farm product prices have doubled since 1967, and processed foods and feeds have increased by 56 percent. Meanwhile, prices of manufactured goods rose by only 32 percent. The crude materials component of industrial products, however, was up in price by 61 percent, outdistancing in the years from 1967 to 1973 the other industrial sectors. Consumer finished goods (excluding goods) rose 35 percent since the same base year of 1967. Processed foods and feeds advanced in price by 56 percent over the same time period.

Mr. Macdonald is Assistant Regional Director for Bureau of Labor Statistics, Boston Office, U.S. Department of Labor.

Agricultural and raw materials prices are traditionally more volatile than manufactured goods both on the upside and on the downswing. This diversity in price movement is partly because many costs entering into manufactured goods move more sluggishly and, hence, prices of finished goods tend to change more slowly than the raw commodities. Examples of such fixed or semi-fixed cost factors are rent, taxes, overhead, amortization and wages, with the latter usually adjusted annually. Also, weather factors heavily influence food, fibre, and feed prices but are less important in their effect upon the supply and price of fabricated articles. During 1973, a heavy demand for American grains and lumber from overseas has been a third force lifting raw product prices. Adding to the problems of the Massachusetts manufacturer was the difficulty of obtaining adequate petroleum supplies—for heating, transportation, and industrial energy purposes—at moderate prices.

In retrospect, early 1972 marked the time point when wholesale price trends began to diffuse markedly. Major sectors of the Wholesale Price Index had been rising, to be sure, from 1967 to early 1972, but with a fairly high degree of conformity in relative price gains. All commodities combined increased by 14 percent during this earlier period, while the advance in farm products was 12 percent, and in processed foods and feeds 14 percent, with average industrial commodities reporting an identical price gain of 14 percent.

The sharper price gains of recent years have lifted average industrial prices to 28 percent above 1967, but up less than the farm prices which rose 100 percent. A few manufactured and other commodities, however, were almost as volatile as the farm products. Lumber and wood prices, for instance, soared 82 percent since 1967.

Refined petroleum prices advanced by 46 percent over the same base year, including a mammoth leap of 31 percent in the twelve months ending in September, thus becoming the strongest element in the current fuel price inflation. Over the longer six-year period since 1967, however, coal prices advanced much more than petroleum prices—102 percent.

Most manufactured commodities have not risen nearly as fast as prices of materials used in the manufacturing process. Wholesale prices of apparel, for example, rose only 19 percent and textile housefurnishings 12 percent over the past six years, both relatively modest price gains. Footwear prices at wholesale increased an average of 30 percent since 1967, while at the same time hides and skins prices advanced by 157 percent from 1967 through September.

Chemicals, important to Massachusetts, had an average price increase of only 12 percent since 1967. Both ferrous and non-ferrous metals have risen more than finished metal products. Prices received by machinery manufacturers have generally advanced less than the prices of major metal materials used in their fabrication.

Prices and Family Budget Costs

Turning to retail prices, the main factors leading to the high budget costs for Boston families are as follows.

1. Food costs are inordinately high since the State imports most foodstuff from outside the region with less than 3 percent of New England's economy in agriculture. Furthermore, Massachusetts is close to the end of the distribution line; hence, transportation costs account for much of the geographical differential in food prices.

2. Housing costs are relatively high in this area, with a variety of factors contributing to the differential—the heavy reliance on real estate taxes and the greater need for cellars and insulation in contrast to the South, for examples. The short building year common in the State because of climatic factors produces further adverse impact on productivity and unit construction costs.

3. Public and private transportation costs—including new and used auto prices, gasoline, oil, insurance, repairs, and maintenance—combine into a total higher in Boston than in 29 of the 38 large cities studied.

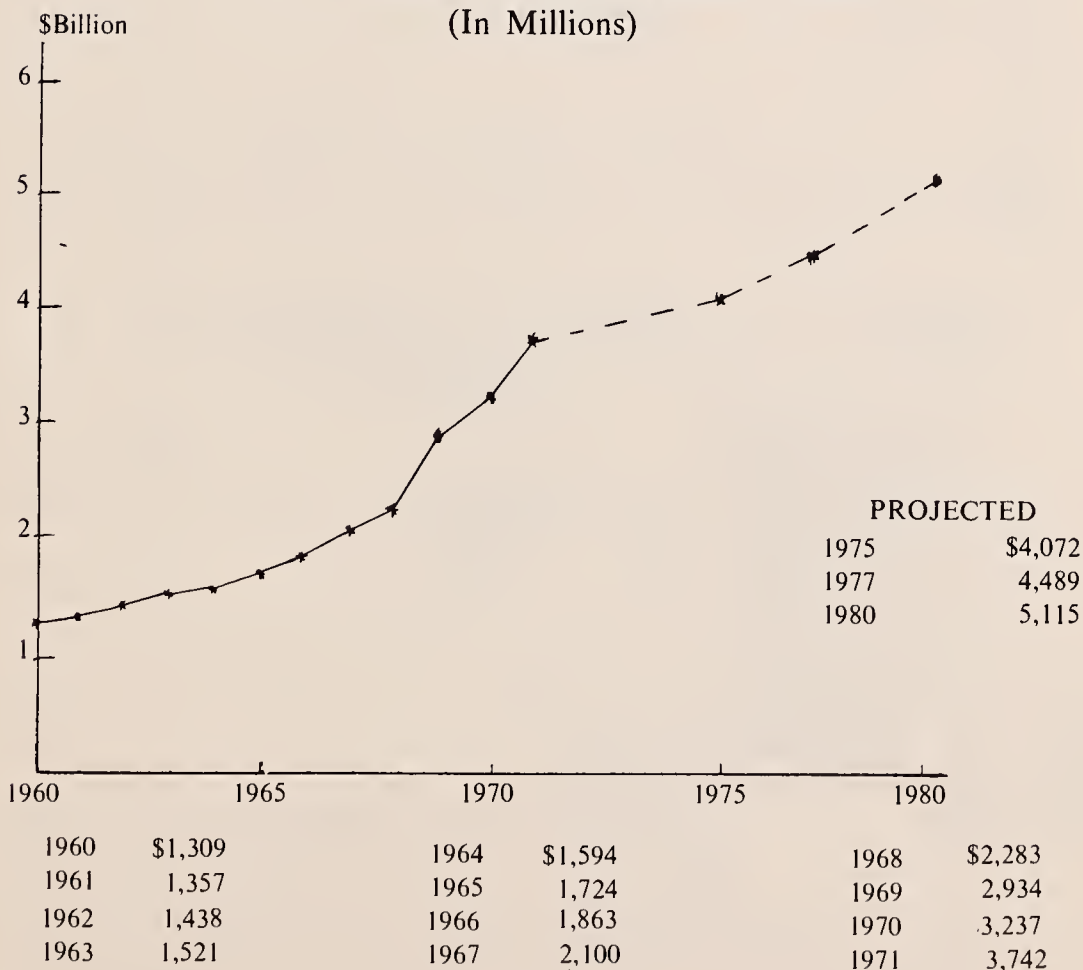
In sum, this area feels sharply not only the general price inflation but is doubly disadvantaged by the fact that prices of commodities going into the production of finished and semi-finished goods have tended to advance faster than prices of goods sold by manufacturers. The Commonwealth, furthermore, has relatively high family budget costs based on retail prices. In the three standard budgets of the BLS, Boston is number one for the intermediate and higher budgets and number two for the lower budget with Honolulu and Anchorage excluded from the comparisons as special cases.

**THE MASSACHUSETTS ECONOMY
DATA AND ANALYSIS**

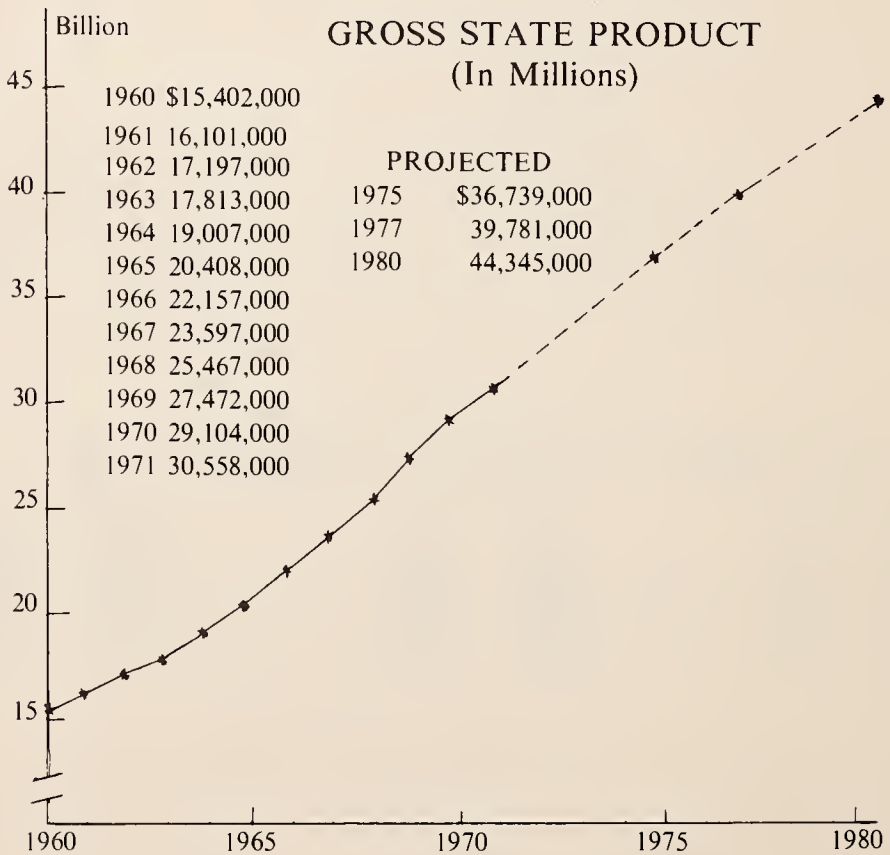
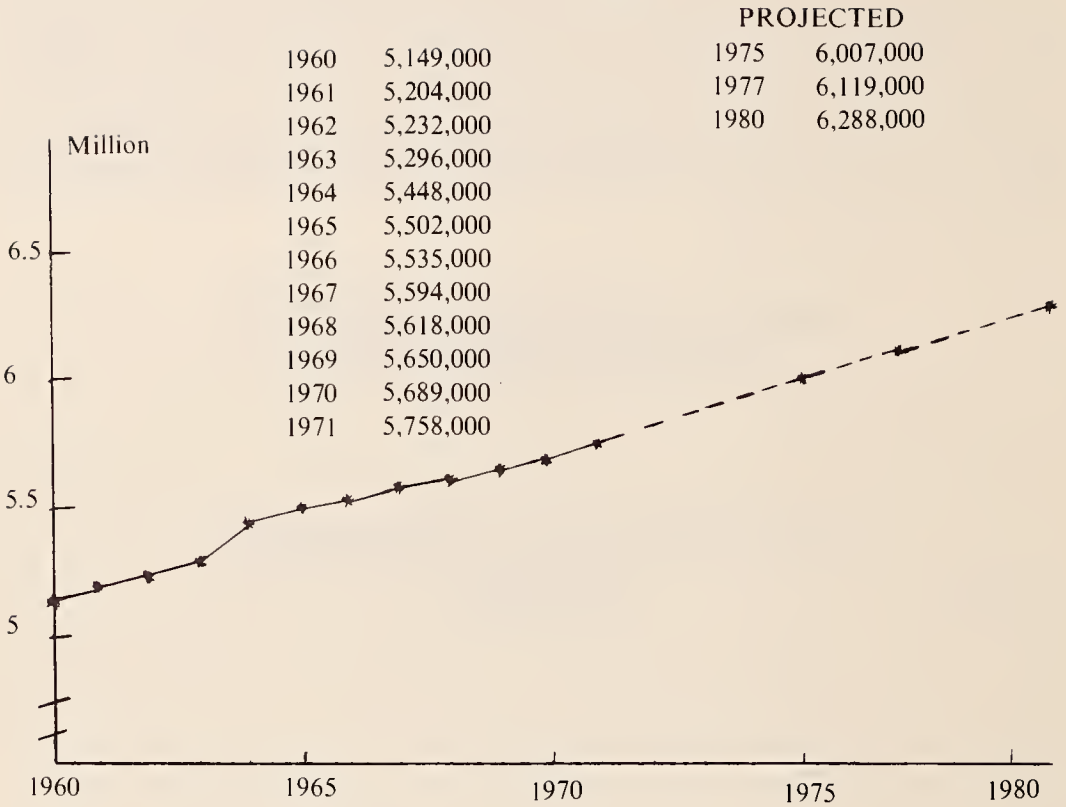
FISCAL PROJECTIONS

Based on historical data since 1960, extrapolations have been made through 1980 of key fiscal items bearing on the Massachusetts economy. These projections are shown in the following charts. Standard statistical techniques were employed and no additional factors or judgements introduced. As with any such extrapolations, the graphs do not necessarily indicate what will happen, but what probably will happen unless the trends are changed by some action.

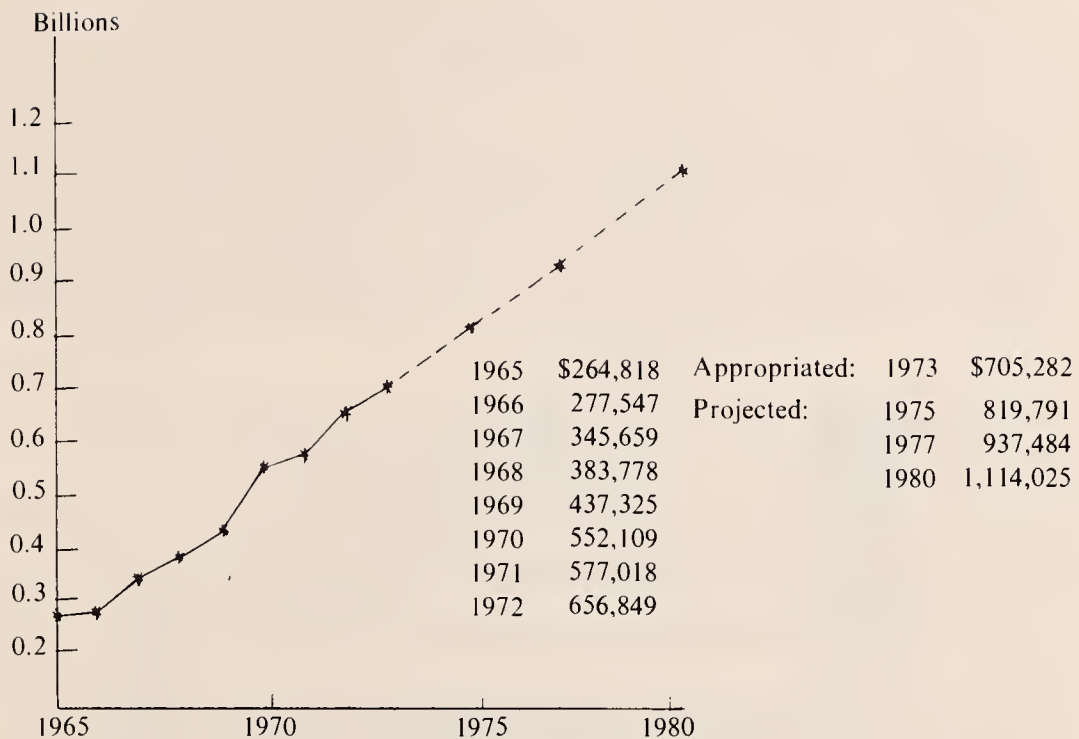
STATE AND LOCAL EXPENDITURES
(In Millions)



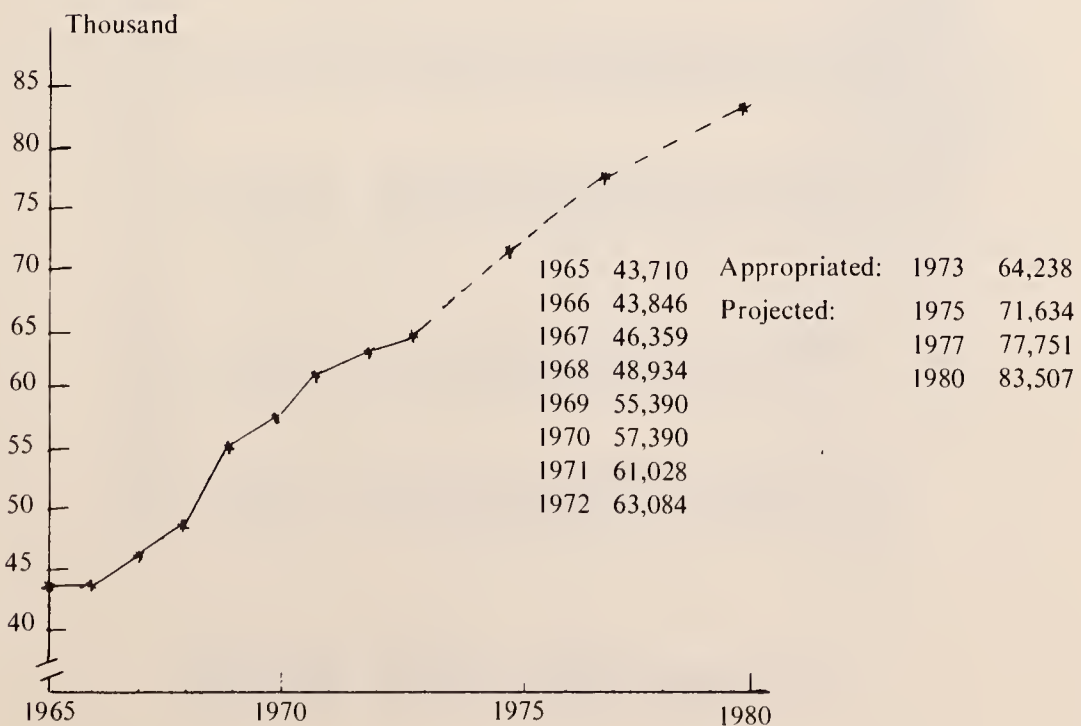
POPULATION (000's)



STATE SALARIES AND RELATED COSTS



STATE TEMPORARY AND PERMANENT POSITIONS



WORK FORCE, EMPLOYMENT, AND UNEMPLOYMENT

The Massachusetts work force grew slowly in the eighteen month period from January, 1972 to June, 1973, increasing .44% for the calendar year 1972. Average work force for the first six months of 1973-2,656,700-was approximately .6% higher than the corresponding months in 1972. (Figures 1,2)

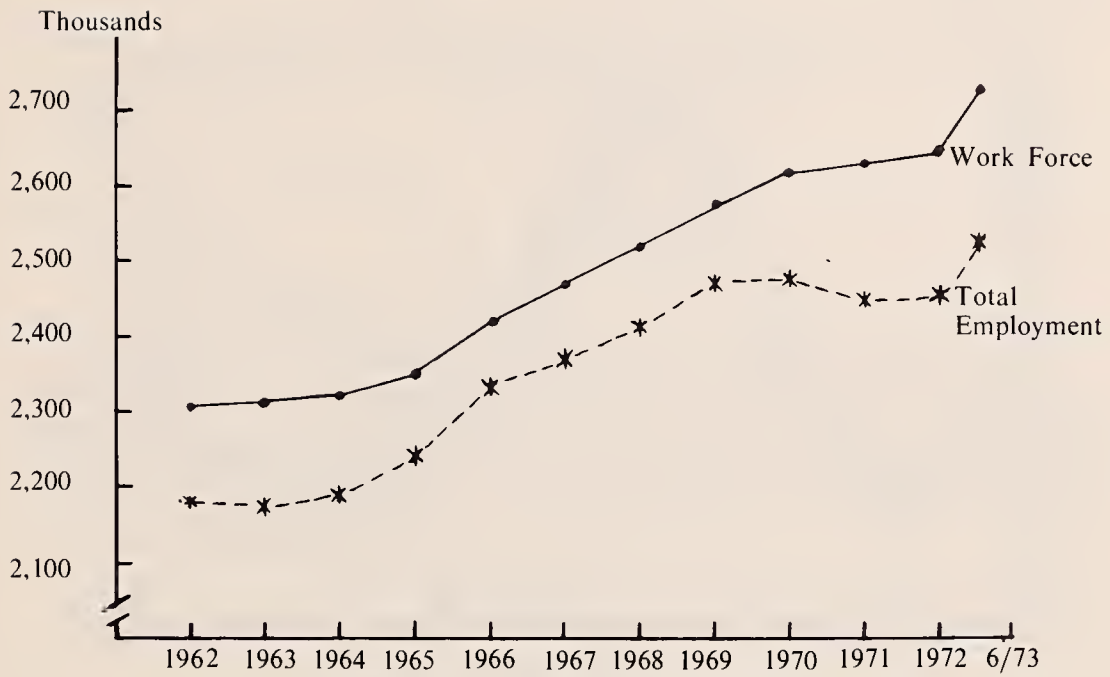
Total employment rose slightly in 1972, reversing the downward trend of 1970-1971, but still remaining .55% below the 1970 figure. In June of 1973 employment reached its highest monthly level, 2,525,500, with the average for the six months gaining 1.17% over the June 1972 level. (Figures 1,2)

FIGURE 1
THE WORK FORCE, EMPLOYMENT, AND UNEMPLOYMENT
IN MASSACHUSETTS
(in thousands of persons)

Period	The Work Force	Total Employment	Employment			Labor Dispute	Unemployment	Unemployment Rate	
			Nonagri-cultural	Agri-cultural	All Other			Mass.*	U.S.*
1963	2,312.1	2,175.9	1,954.0	17.1	204.8	1.6	134.6	5.8	5.7
1964	2,321.5	2,188.9	1,968.7	16.5	203.7	0.5	132.1	5.7	5.2
1965	2,357.0	2,240.9	2,024.4	16.1	200.4	1.5	114.6	4.9	4.5
1966	2,421.8	2,316.7	2,108.7	15.5	192.5	3.1	102.0	4.2	3.8
1967	2,473.6	2,371.9	2,169.8	14.7	187.4	1.8	99.9	4.0	3.8
1968	2,518.7	2,413.2	2,216.4	14.7	182.2	4.6	100.9	4.0	3.6
1969	2,581.3	2,475.5	2,277.5	14.1	183.9	5.3	100.5	3.9	3.5
1970	2,618.8	2,476.3	2,280.9	13.8	181.6	4.8	137.7	5.3	4.9
1971	2,636.3	2,448.9	2,255.1	13.1	180.7	2.4	185.0	7.0	5.9
1972	2,647.9	2,455.5	2,266.7	12.5	176.3	1.2	191.2	7.2	5.6
January	2,600.6	2,409.5	2,225.4	9.6	174.5	0.5	190.6	7.3	5.6
February	2,605.7	2,407.2	2,222.6	9.6	175.0	0.4	198.1	7.6	6.4
March	2,625.2	2,420.3	2,230.8	9.5	180.0	0.6	204.3	7.8	6.1
April	2,646.6	2,447.3	2,261.6	9.5	176.2	1.4	197.9	7.5	5.5
May	2,661.3	2,470.2	2,273.0	12.7	184.5	3.1	188.0	7.1	5.1
June	2,713.7	2,490.9	2,294.1	17.3	179.5	1.7	221.1	8.2	6.2
July	2,675.6	2,455.3	2,256.9	16.5	181.9	0.7	219.6	8.2	5.8
August	2,657.4	2,462.3	2,264.3	17.4	180.6	2.1	193.0	7.3	5.5
September	2,629.8	2,458.1	2,273.4	15.4	169.3	1.5	170.2	6.5	5.4
October	2,637.6	2,475.2	2,290.1	13.0	172.1	0.4	162.0	6.1	5.1
November	2,655.6	2,480.4	2,299.2	10.8	170.4	1.0	174.2	6.6	4.9
December	2,655.9	2,489.8	2,308.7	9.0	172.1	1.0	175.1	6.6	4.7
1973									
January	2,617.2	2,430.9	2,259.1	7.5	164.3	1.0	185.3	7.1	5.5
February	2,623.9	2,435.1	2,261.9	7.5	165.7	1.2	187.6	7.2	5.6
March	2,633.4	2,451.8	2,272.7	7.4	171.7	1.3	180.3	6.8	5.2
April	2,652.9	2,475.5	2,299.6	7.9	168.0	5.0	172.4	6.5	4.8
May	2,676.1	2,498.1	2,311.3	10.6	176.2	1.8	176.2	6.6	4.3
June	2,737.3	2,525.5	2,332.8	12.1	180.6	1.2	210.6	7.7	5.4
6 Month Average	2,656.7	2,469.4	2,289.5	8.8	171.1	1.9	185.4	7.0	5.1
								6.8	5.0

* Not adjusted for seasonality.
Source: Current Employment Series of U.S. Department of Labor, Bureau of Labor Statistics/Massachusetts Department of Labor and Industries as Adjusted to Employment and Wage Data of Massachusetts Division of Employment Security.
Adjusted for seasonality

FIGURE 2
WORK FORCE AND TOTAL EMPLOYMENT
1962-1973



Source: *Massachusetts Trends in Employment and Unemployment*, July, 1973.

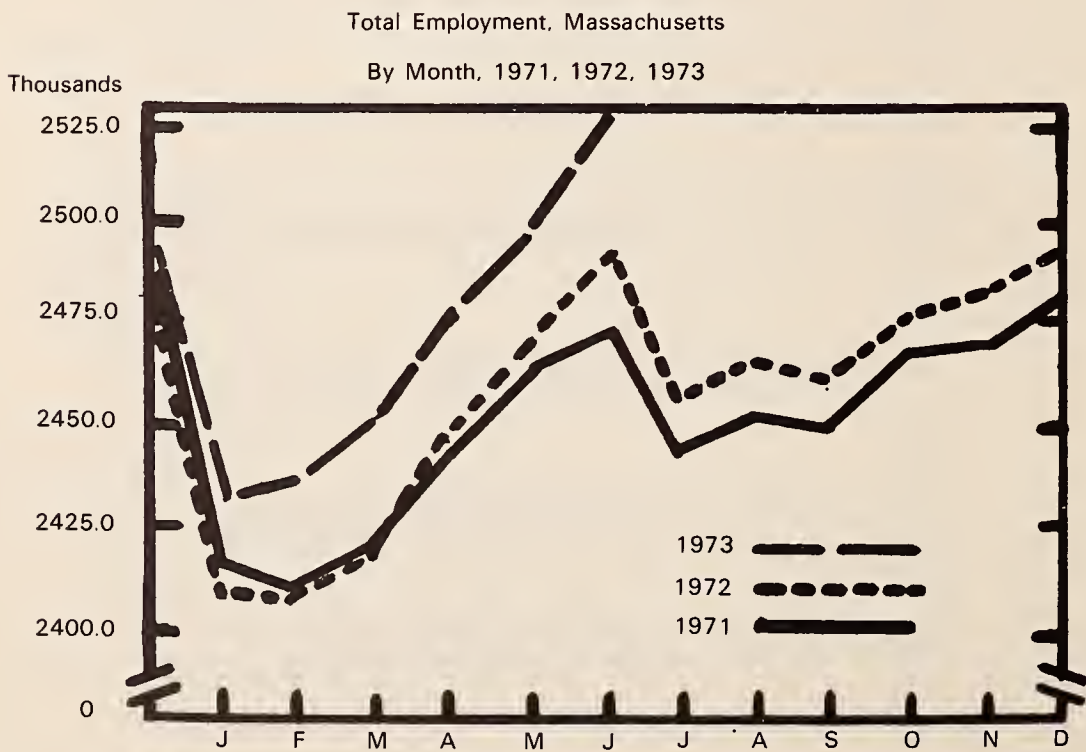
UNEMPLOYMENT

Unemployment, while continuing to rise, did so at a much slower rate than in the previous three years, supporting the opinion that the worst is now past for the state.

<u>Year</u>	<u>Number Unemployed</u>	<u>Percent Change</u>
1969	100,500	—
1970	137,700	37.01%
1971	185,000	34.35%
1972	192,200	3.89%

The unemployment rate rose 2.86%, from 7.0 in 1971 to 7.2 in 1972; it decreased during the first half of 1973 to a six-month average of just under 7.0. (Figure 4) However, Massachusetts unemployment remains high when compared to the U.S. as a whole: 5.6% for the country vs. 7.2% for the state in 1972, and 5.1% vs. 7.0% through June, 1973. (Figure 6)

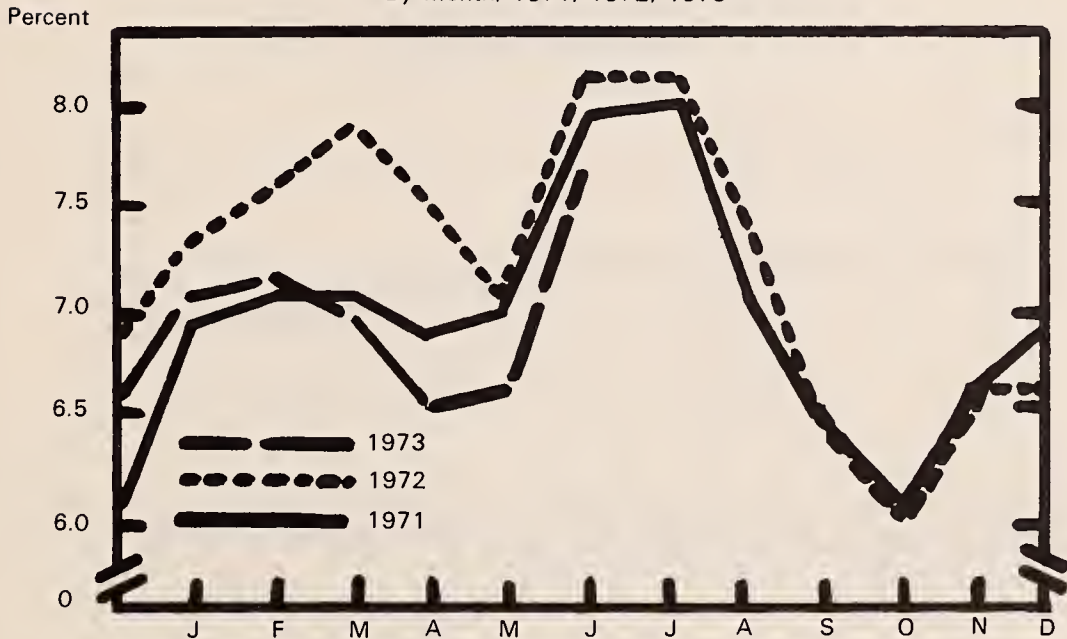
FIGURE 3a,
TOTAL EMPLOYMENT, MASSACHUSETTS, MONTHLY
1971-1973



3b
 UNEMPLOYMENT RATES, MASSACHUSETTS, MONTHLY
 1971-1973

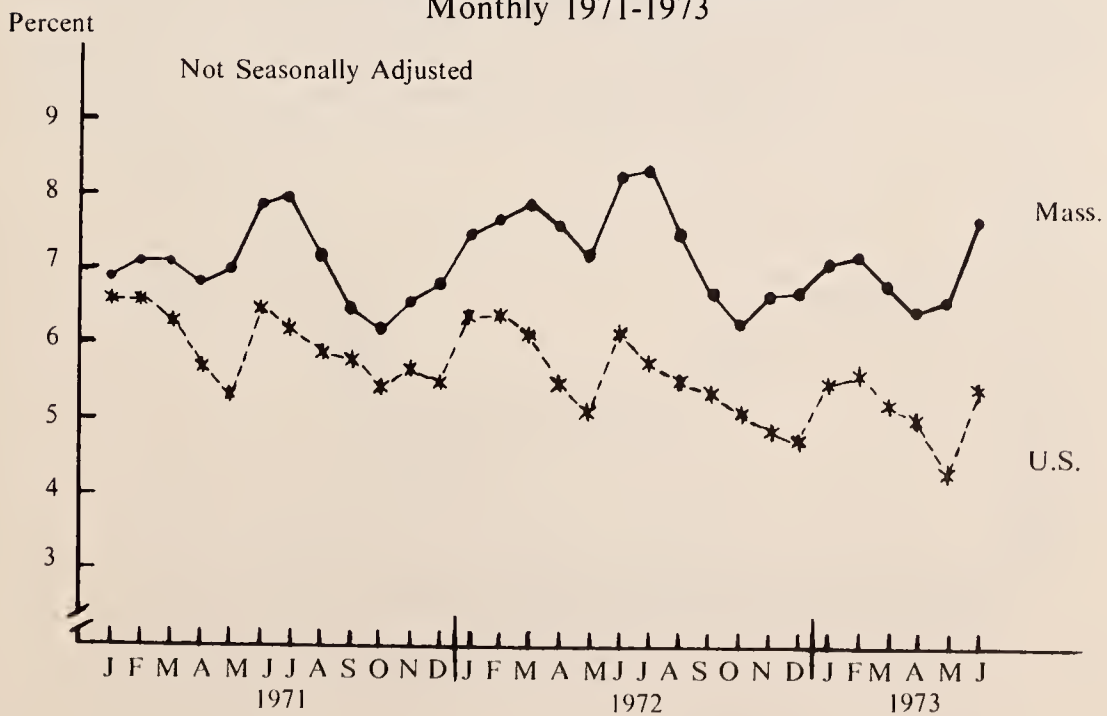
Unemployment Rates, Massachusetts

By Month, 1971, 1972, 1973



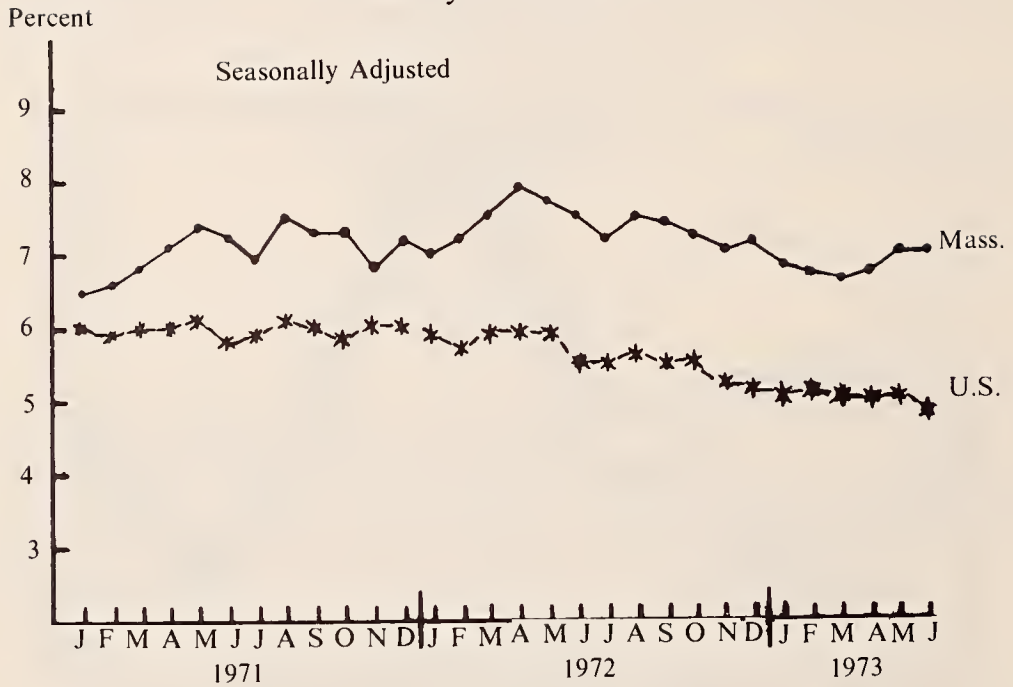
Source: *Massachusetts Trends in Employment & Unemployment*, D.E.S., July, 1973.

FIGURE 4
 UNEMPLOYMENT RATES
 Monthly 1971-1973



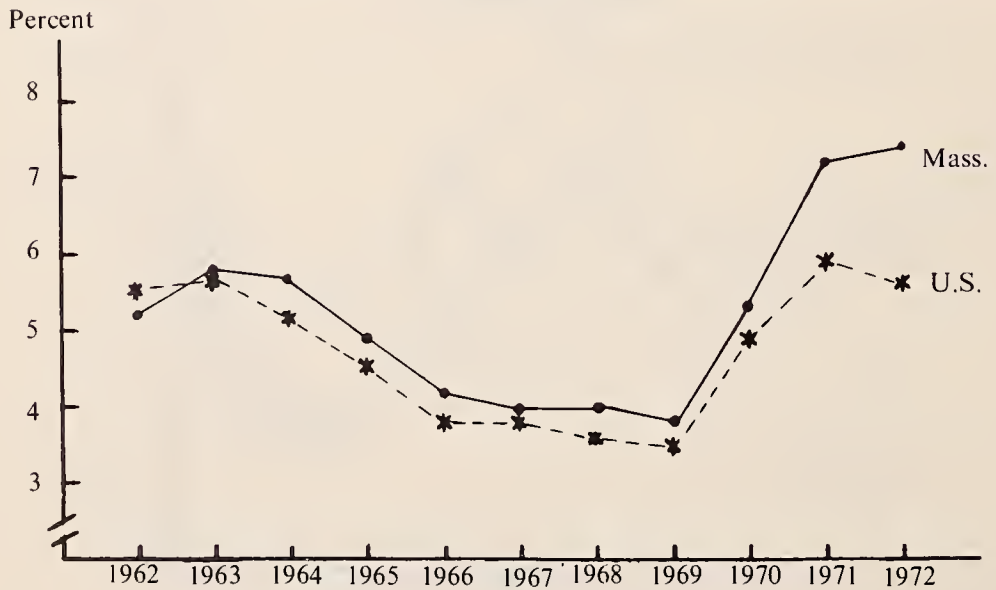
Source: *Massachusetts Trends in Employment and Unemployment*, July, 1973.

FIGURE 5
UNEMPLOYMENT RATES
Monthly 1971-1973



Source: Massachusetts Trends in Employment and Unemployment, July, 1973

FIGURE 6
UNEMPLOYMENT RATES
MASSACHUSETTS AND U.S.
1962-1972



Source: *Massachusetts Trends in Employment and Unemployment*, January, 1973.

A small change in the distribution of the unemployed occurred during the year, with decreases in every category except women over 20, which increased .6% for Massachusetts but dropped .4% for the Country. (Figure 7)

FIGURE 7
1972 UNEMPLOYMENT RATES
Age Distribution

	<u>U.S.</u>	<u>Mass.</u>
White	5.0	6.3
Men 20 years & over	3.6	5.1
Women 20 years & over	4.9	5.6
Both sexes, 16-19 years	14.2	15.1
Negro and other races	10.0	13.0

Source: Compiled from the *Geographic Profile of Employment and Unemployment, 1972*; Report 421, U.S. Department of Labor, Bureau of Labor Statistics; p. 3, 9.

Around the state the nine larger SMSA's showed relatively little change in work force and total employment, with most gaining or losing less than 1%. (Figure 8) Unemployment rates improved in all but two areas, Worcester and Fall River-R.I. Of the smaller labor market areas, all increased in both work force and employment. (Figure 9) The classified labor areas bear the brunt of the high rate of unemployment, with only three falling below the state average of 7.2% and ten having an increase for 1972.

FIGURE 8
Work Force, Employment, and Unemployment Rates
Massachusetts Labor Market Areas
Larger SMSA's
Year 1972 vs. 1971

	Work Force			Total Employment*			Unemployment Rate	
	Annual Average		Percent Change	Annual Average		Percent Change	Annual Average	
	1972	1971		1972	1971		1972	1971
Massachusetts	2,647,800	2,636,200	0.44%	2,455,400	2,451,200	0.17	7.2	7.0
SMSA's								
Boston	1,469,300	1,468,600	0.05	1,378,700	1,383,100	0.32	6.1	5.8
Worcester	150,500	149,200	0.87	139,600	138,400	0.87	7.2	7.2
Springfield-								
Chicopee-Holyoke	221,800	223,900	0.94	204,200	204,900	0.34	7.9	8.5
Fall River-								
Rhode Island	54,700	54,400	0.55	50,300	50,000	0.60	8.0	7.5
New Bedford	66,200	66,200	0	60,500	60,200	0.50	8.6	9.0
Lawrence-Haverhill-								
New Hampshire	98,600	98,600	0	89,400	89,500	-0.11	9.3	9.3
Lowell	65,100	64,400	1.09	57,200	57,500	-0.52	10.6	10.1
Brockton	64,200	65,100	-1.38	59,700	58,700	1.70	8.3	8.6

*Includes labor disputes

Source: Compiled from the *Annual Manpower Planning Report*, D.E.S., January, 1973

FIGURE 9
Work Force, Employment and Unemployment Rates of
Smaller Massachusetts Labor Market Areas
Year 1972 vs. Year 1971

	Work Force			Total Employment*			Unemployment Rate		Area Classification
	Annual 1972	Average 1971	Percent Change	Annual 1972	Average 1971	Percent Change	Annual 1972	Average 1971	
SMSAs									
Fitchburg-Leominster	42,500	41,700	+1.9	38,600	37,700	+2.4	9.2	9.6	S
Pittsfield	38,950	38,300	+1.7	36,050	35,750	+0.8	7.4	6.7	S
Classified Labor Areas									
Athol	11,400	10,950	+4.1	10,650	10,200	+4.4	6.6	6.8	S
Bourne-Warham-Rochester	7,450	6,850	+8.8	6,310	5,990	+5.3	15.3	12.6	P
Clinton	8,300	7,820	+6.1	7,750	7,090	+9.3	6.6	9.3	S
Gardner	12,400	11,800	+5.1	11,400	10,900	+4.6	8.1	7.6	S
Gloucester	13,950	13,250	+5.3	12,300	11,700	+5.1	11.8	11.7	P
Great Barrington	6,800	6,020	+13.0	6,300	5,480	+15.0	7.4	9.0	S
Greenfield	18,950	18,750	+1.1	17,550	17,150	+2.3	7.4	8.5	S
Marlborough	25,200	24,100	+4.6	23,100	22,100	+4.5	8.3	8.3	S
Milford	14,000	13,100	+6.9	12,200	11,500	+6.1	12.9	12.2	P
Nantucket	2,230	2,130	+4.7	2,100	2,030	+3.4	5.8	4.7	-
Newburyport	14,550	14,000	+3.9	12,300	11,950	+2.9	15.5	14.6	P
North Adams	15,950	15,600	+2.2	14,250	13,800	+3.3	10.7	11.5	P
Plymouth	10,440	9,810	+6.4	8,600	8,430	+2.0	17.6	14.1	P
Provincetown-Truro	2,780	2,500	+11.2	2,070	1,960	+5.6	25.5	21.6	P
Southbridge-Webster	21,900	21,000	+4.3	20,050	19,000	+5.5	8.4	9.5	S
Taunton	32,800	31,750	+3.3	30,400	29,450	+3.2	7.3	7.2	S
Tisbury	3,130	3,100	+1.0	2,890	2,880	+0.3	7.7	7.1	S
Ware	7,200	6,870	+4.8	6,270	5,870	+6.8	12.9	14.6	P

Note: All 1972 figures are provisional

* Including persons involved in labor management disputes

S: An area of "substantial unemployment" is one in which the current and anticipated local labor supply substantially exceeds labor requirements, and in which

1 Unemployment is equal to 6 percent or more of its work force, discounting seasonal or temporary factors, and

2 The unemployment rate during the next two months is expected to remain at 6 percent or more, discounting seasonal or temporary factors.

P: An area of "persistent unemployment" is one in which unemployment during the most recent calendar year has averaged 6 percent or more and has been

1. At least 50 percent above the national average for 3 of the preceding 4 calendar years, or

2. At least 75 percent above the national average for 2 of the preceding 3 calendar years, or

3. At least 100 percent above the national average for 1 of the preceding 2 calendar years.

Source: *Annual Manpower Planning Report*, D.E.S., January, 1973.

The picture for manufacturing employment has improved, starting to rise again for the first time since 1967. (Figure 10) A loss of 46,200 employees in 1970-1971 was reduced to 2,400 in 1971-1972, and projections for Fiscal Years 1973 and 1974 indicate a slow upward trend of 1.4% and 1.5%, respectively. (Figures 12,13) The 1973 predictions were very accurate; average manufacturing employment for that Fiscal Year was 609.7, while the projection was 608.5.

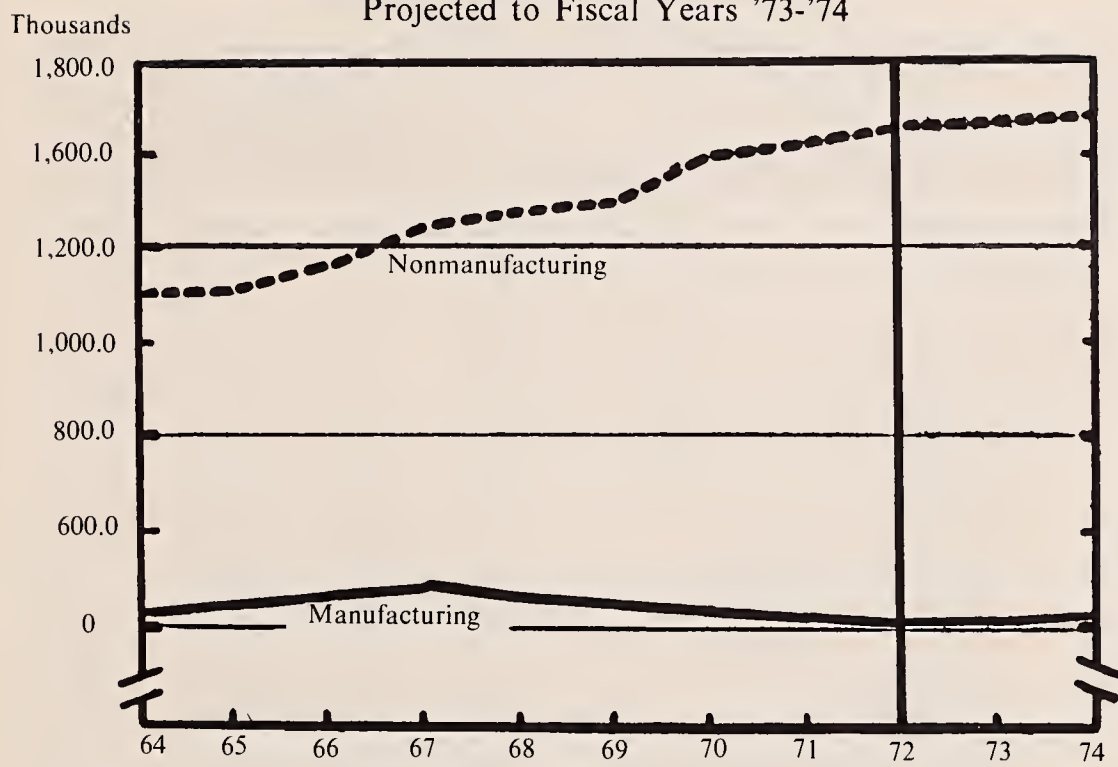
FIGURE 10
EMPLOYMENT IN NONAGRICULTURAL ESTABLISHMENTS
BY MAJOR INDUSTRY DIVISIONS
(in thousands of persons)

Period	Non-agricultural Total	Manufacturing	Contract Construction	Transportation & Public Utilities	Wholesale & Retail Trade	Finance & Insurance & Real Estate	Services & Miscellaneous	Government
1963	1,954.0	663.5	81.4	102.7	401.1	104.9	332.9	267.5
1964	1,968.7	649.9	86.7	103.2	407.0	106.6	342.6	272.7
1965	2,024.4	665.8	87.6	105.5	417.7	108.6	360.7	278.5
1966	2,108.7	696.0	88.6	107.1	436.1	111.1	383.6	286.2
1967	2,169.8	699.7	88.9	109.8	450.2	115.5	408.6	297.1
1968	2,216.4	690.1	93.6	108.0	468.1	120.3	433.8	302.5
1969	2,277.5	682.6	99.6	114.8	487.5	125.5	456.8	310.7
1970	2,280.9	650.5	100.0	117.8	496.6	129.5	466.5	319.9
1971	2,255.0	604.3	100.3	118.2	498.6	129.0	474.1	330.6
1972	2,266.7	601.9	99.9	121.5	498.5	129.3	478.4	337.2
January	2,225.4	595.4	87.2	118.2	490.5	128.2	469.9	336.0
February	2,222.6	599.0	84.1	119.0	482.1	127.9	471.5	339.0
March	2,230.8	599.7	83.6	119.9	486.2	128.2	473.5	339.7
April	2,261.6	598.5	97.6	120.8	494.7	128.9	482.1	339.0
May	2,273.0	597.8	100.8	121.2	500.7	128.9	485.2	338.4
June	2,294.1	608.4	106.8	123.8	505.1	130.1	484.3	335.6
July	2,256.9	585.7	110.0	122.4	498.6	130.6	477.1	332.5
August	2,264.3	600.8	111.3	122.3	494.7	130.3	473.3	331.6
September	2,273.4	602.4	108.9	122.7	494.8	128.7	479.8	332.1
October	2,290.1	609.8	106.3	122.9	499.7	128.9	484.4	338.1
November	2,299.2	612.7	103.4	122.7	508.4	129.3	481.1	341.6
December	2,398.7	612.6	99.1	122.8	523.0	129.8	479.2	342.2
1973								
January	2,259.1	607.1	89.9	121.4	493.8	128.2	477.4	341.3
February	2,261.9	611.2	86.7	120.7	486.6	128.7	482.2	345.8
March	2,272.7	614.8	87.2	121.9	489.8	129.0	484.2	345.8
April	2,299.6	615.6	96.5	120.3	500.5	129.8	491.5	345.4
May	2,311.3	615.6	101.8	122.9	502.3	130.4	494.5	343.8
June	2,332.8	628.3	108.1	124.4	506.4	132.0	495.3	338.3
6 Month Average	2,289.5	615.5	95.0	121.9	496.5	129.7	487.5	343.4

Note: Current month's data always preliminary

FIGURE 11

Employment in Manufacturing and
Nonmanufacturing Fiscal Years '64-'72
Projected to Fiscal Years '73-'74



Source: *Annual Manpower Planning Report*, D.E.S., 1973

FIGURE 12
PROJECTIONS OF THE WORK FORCE, UNEMPLOYMENT
AND
EMPLOYMENT BY MAJOR INDUSTRY DIVISIONS AND GROUPS
FISCAL YEAR 1972 to FISCAL YEAR 1973

MAJOR INDUSTRY DIVISIONS AND GROUPS	Employment*			
	Fiscal Yr. Average 1972	Estimated Change From FY 1972-FY 1973		Fiscal Yr. Average 1973
		Amount	Percent	
THE WORK FORCE	2645.0	+10.7	+0.4	2655.7
UNEMPLOYMENT	193.1	-1.0	-0.5	192.1
THE RATE	7.3	xx	xx	7.2
TOTAL EMPLOYMENT	2451.9	+11.7	+0.5	2463.6
Nonagricultural Total	2257.7	+21.4	+0.9	2279.1
Manufacturing Total	600.3	+8.2	+1.4	608.5
Durable Goods	301.5	+6.1	+2.0	307.6
Ordnance	16.0	+0.4	+2.5	16.4
Primary metal industries	16.5	+0.8	+4.8	17.3
Fabricated metal products	39.0	+1.6	+4.1	40.6
Machinery, except electrical	66.9	+2.6	+3.9	69.5
Electrical machinery, equip. & supplies ..	83.5	0.0	0.0	83.5
Transportation equipment	22.1	-1.5	-6.8	20.6
Instruments, etc.	31.4	+1.2	+3.8	32.6
All other durables	26.1	+1.0	+3.8	27.1
Nondurable Goods	298.8	+2.1	+0.7	300.9
Food and kindred products	35.8	-0.2	-0.6	35.6
Textile mill products	29.2	+0.5	+1.7	29.7
Apparel and related products	47.1	+0.9	+1.9	48.0
Paper and paper products	32.3	+0.2	+0.6	32.5
Printing and publishing	43.4	+0.3	+0.7	43.7
Chemicals and allied products	18.7	-0.4	-2.1	18.3
Rubber and misc. plastics products	33.7	+1.3	+3.9	35.0
Leather and leather products	31.4	-1.8	-5.7	29.6
All other nondurables	27.2	+1.3	+4.8	28.5
Nonmanufacturing Total	1657.4	+13.2	+0.8	1670.6
Contract construction	100.3	-0.3	-0.3	100.0
Transportation, comm., & utilities	120.0	+2.6	+2.2	122.6
Wholesale and retail trade	498.1	+0.1	#	498.2
Finance, insurance and real estate	128.9	+1.1	+0.9	130.0
Services, miscellaneous, and mining	476.1	+5.3	+1.1	481.4
Government	334.0	+4.4	+1.3	338.4
Federal	61.7	-2.5	-4.1	59.2
State and local	272.3	+6.9	+2.5	279.2
All other nonagricultural including agriculture and labor disputes	194.2	-9.7	-5.0	184.5

Source: Current Employment Series of U.S. Department of Labor, Bureau of Statistics, Massachusetts Department of Labor and Industries as adjusted to Employment and Wage data of Massachusetts Division of Employment Security.

* In thousands of jobs

Less than .05

FIGURE 13
PROJECTIONS OF THE WORK FORCE, UNEMPLOYMENT
AND
EMPLOYMENT BY MAJOR INDUSTRY DIVISIONS AND GROUPS
FISCAL YEAR 1973 to FISCAL YEAR 1974

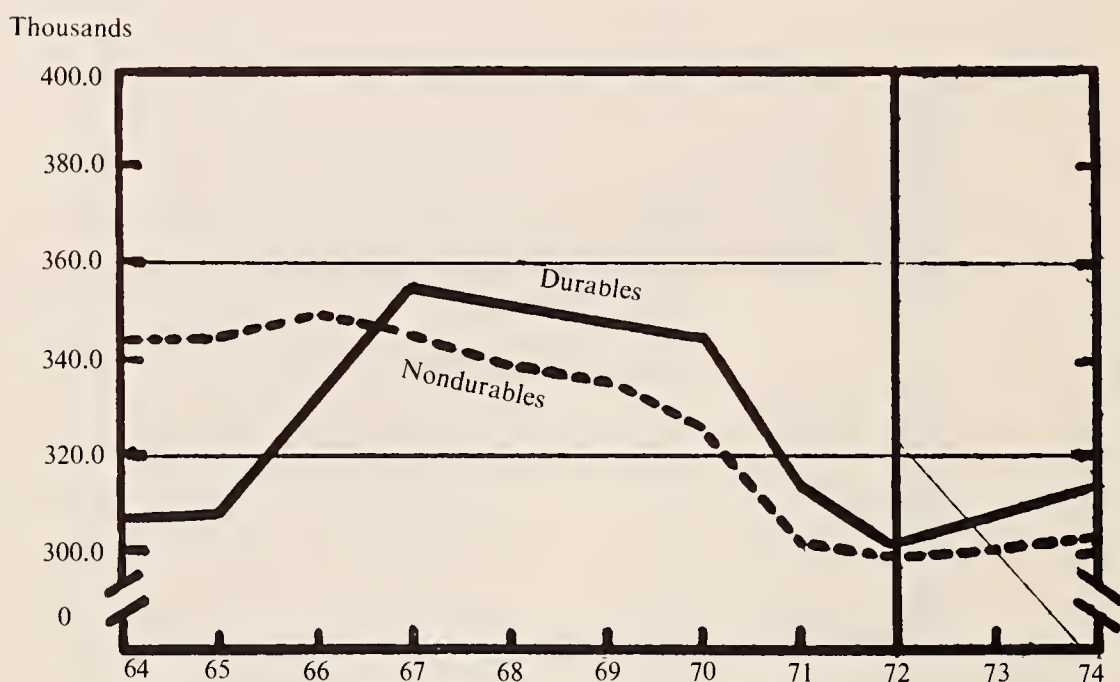
MAJOR INDUSTRY DIVISIONS AND GROUPS	Employment*			
	Fiscal Yr. Average 1973	Estimated Change From FY 1973 to 1974		Fiscal Yr. Average 1974
		Amount	Percent	
THE WORK FORCE	2655.7	+5.7	+0.2	2661.4
UNEMPLOYMENT	192.1	-9.8	-5.1	182.3
THE RATE	7.2	xx	xx	6.8
TOTAL EMPLOYMENT	2463.6	+15.5	+0.6	2479.1
Nonagricultural Total	2279.1	+19.5	+0.9	2298.6
Manufacturing Total	608.5	+9.4	+1.5	617.9
Durable Goods	307.6	+6.8	+2.2	314.4
Ordnance	16.4	+0.3	+1.8	16.7
Primary metal industries	17.3	+0.8	+4.6	18.1
Fabricated metal products	40.6	+0.9	+2.2	41.5
Machinery, except electrical	69.5	+2.2	+3.2	71.7
Electrical machinery, equip. & supplies ..	83.5	+1.2	+1.4	84.7
Transportation equipment	20.6	-0.5	-2.4	20.1
Instruments, etc.	32.6	+1.4	+4.3	34.0
All other durables	27.1	+0.5	+1.8	27.6
Nondurable Goods	300.9	+2.6	+0.9	303.5
Food and kindred products	35.6	-0.2	-0.6	35.4
Textile mill products	29.7	+0.2	+0.7	29.9
Apparel and related products	48.0	+0.6	+1.2	48.6
Paper and paper products	32.5	+0.2	+0.6	32.7
Printing and publishing	43.7	+0.8	+1.8	44.5
Chemicals and allied products	18.3	-0.3	-1.6	18.0
Rubber and misc. plastics products	35.0	+1.2	+3.4	36.2
Leather and leather products	29.6	-1.1	-3.7	28.5
All other nondurables	28.5	+1.2	+4.2	29.7
Nonmanufacturing Total	1670.6	+10.1	+0.6	1680.7
Contract construction	100.0	-0.3	-0.3	99.7
Transportation, comm., & utilities	122.6	+1.6	+1.3	124.2
Wholesale and retail trade	498.2	+0.6	+0.1	498.8
Finance, insurance and real estate	130.0	+1.6	+1.2	131.6
Services, miscellaneous, and mining	481.4	+4.0	+0.8	485.4
Government	338.4	+2.6	+0.8	341.0
Federal	59.2	-2.2	-3.7	57.0
State and local	279.2	+4.8	+1.7	284.0
All other nonagricultural including agriculture and labor disputes	184.5	-4.0	-2.2	180.5

Source: Current Employment Series of U.S. Department of Labor, Bureau of Statistics, Massachusetts Department of Labor and Industries as adjusted to Employment and Wage data of Massachusetts Division of Employment Security.

* In thousands of jobs

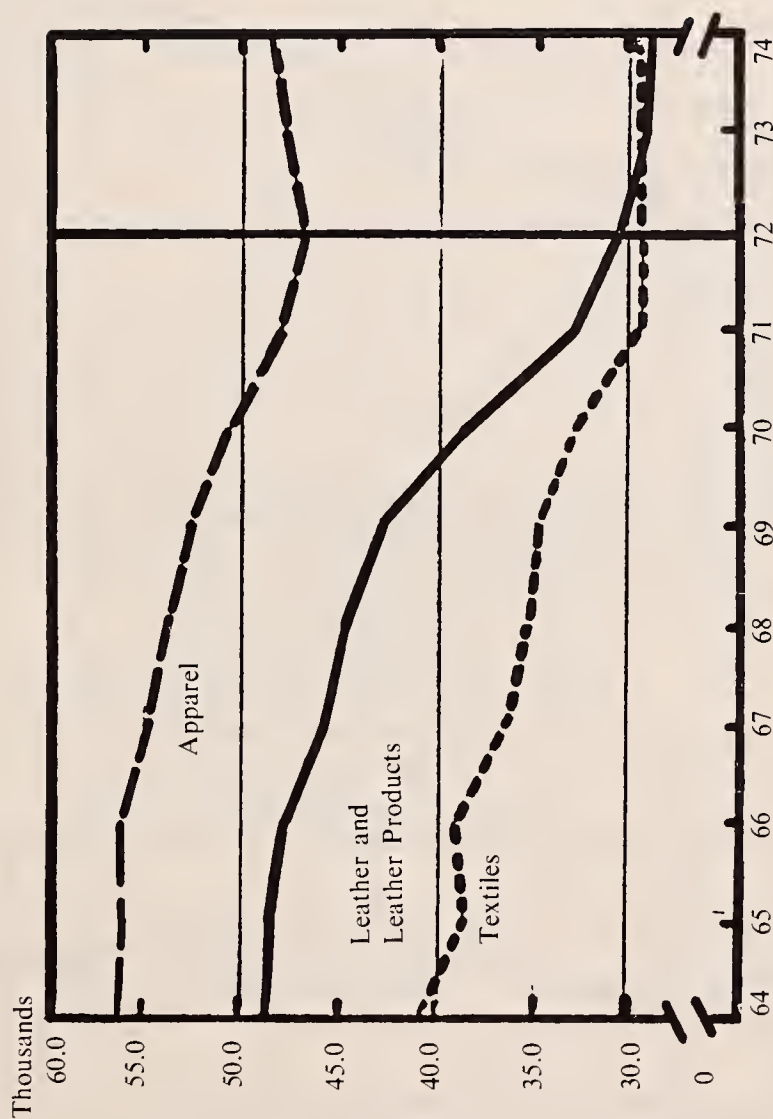
Both the durable and nondurable goods sectors have started to exhibit gains during the first half of 1973. (Figure 14) Hard goods industries, except for shipbuilding, and soft goods, except for food, leather and leather products, and chemicals, are reporting improved conditions which are expected to continue through FY 1974.

FIGURE 14
Employment in Durable and Nondurable Goods
Fiscal Years '64-'72
Projected to Fiscal Years '73-'74



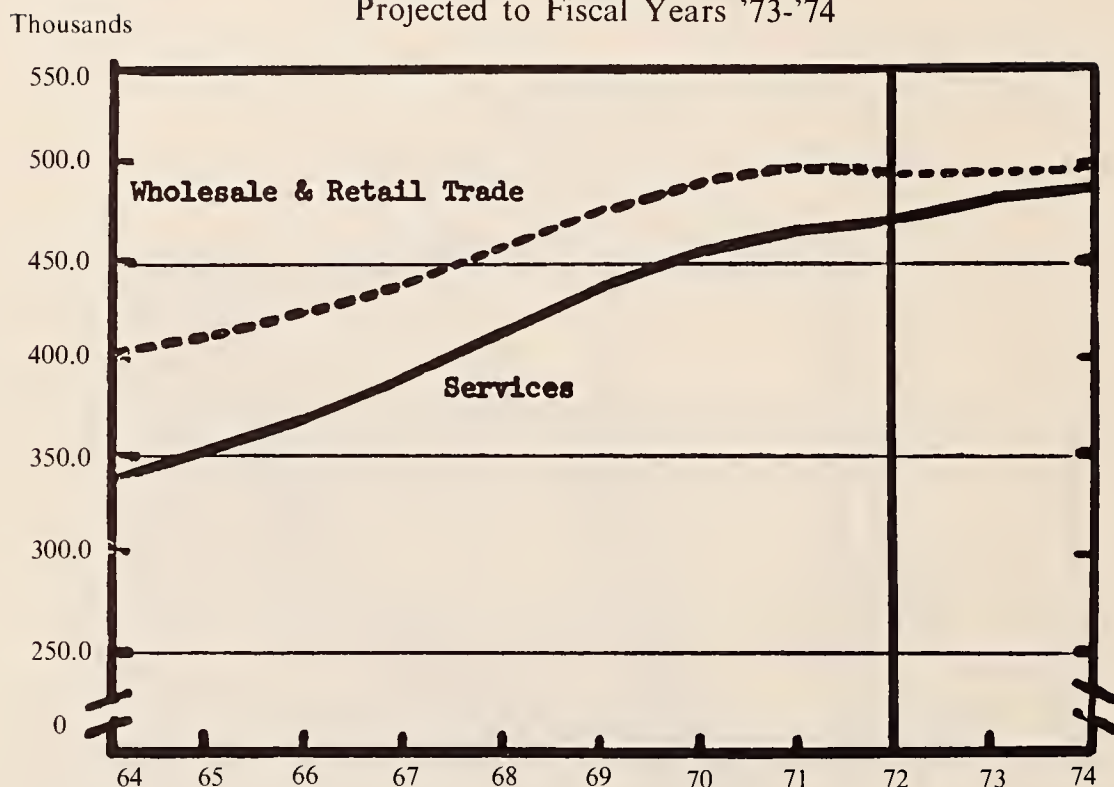
Source: *Annual Manpower Planning Report*, D.E.S., 1973.

FIGURE 15
Employment in Textiles,
Apparel and Leather and Leather Products
Fiscal Years '64-'72
Projected to Fiscal Years '73-'74



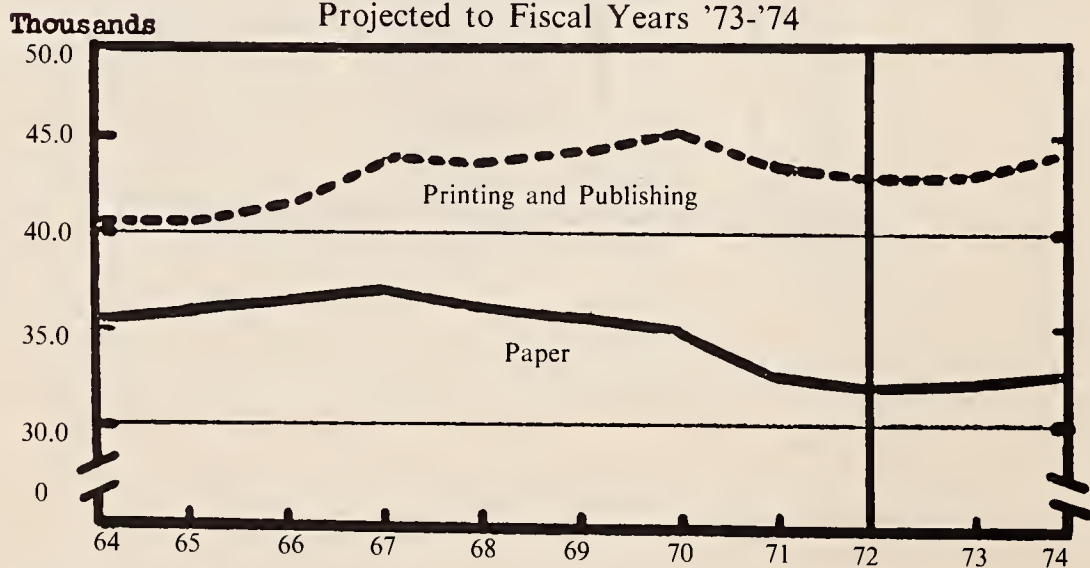
Source: *Annual Manpower Planning Report*, D.E.S., 1973.

FIGURE 16
Employment in Wholesale and
Retail Trade and Services
Fiscal Years '64-'72
Projected to Fiscal Years '73-'74



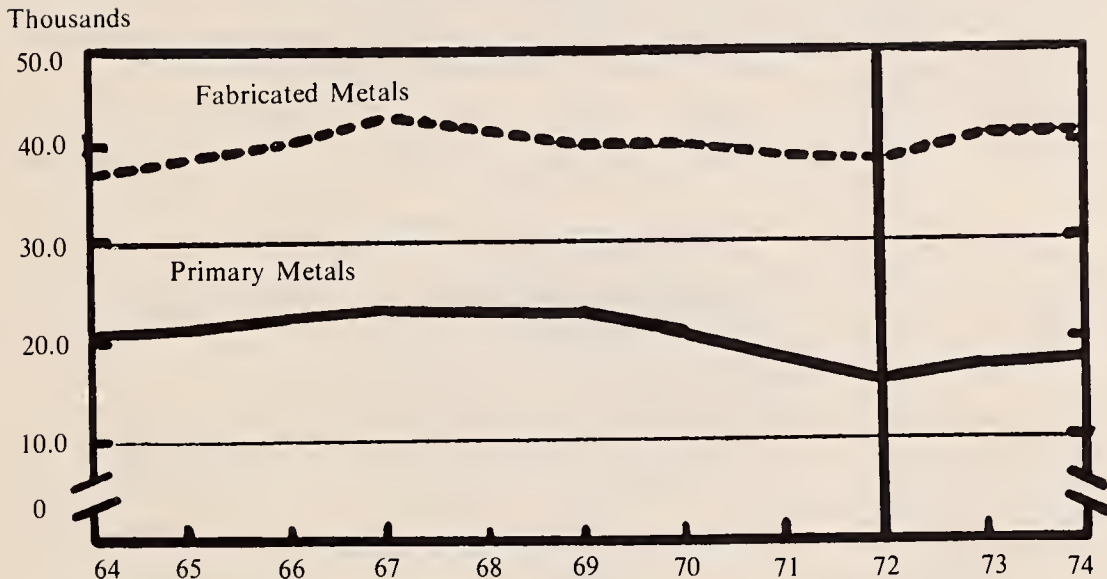
Source: *Annual Manpower Planning Report*, D.E.S., 1973.

FIGURE 17
Employment in Printing and Publishing
and the Paper Industries
Fiscal Years '64-'72
Projected to Fiscal Years '73-'74



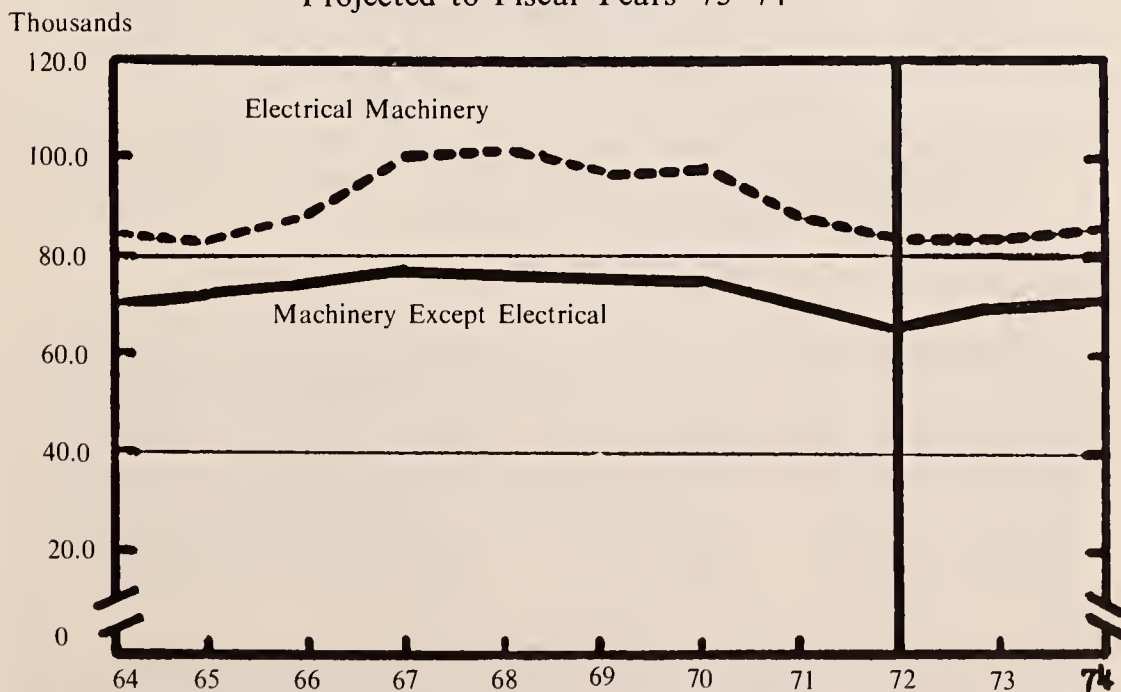
Source: *Annual Manpower Planning Report*, D.E.S., 1973.

FIGURE 18
Employment in Primary
and Fabricated Metals Industries
Fiscal Years '64-'72
Projected to Fiscal Years '73-'74



Source: *Annual Manpower Planning Report*, D.E.S., 1973.

FIGURE 19
Employment in Electrical Machinery
and Machinery (Except Electrical)
Fiscal Years '64-'72
Projected to Fiscal Years '73-'74



Source: *Annual Manpower Planning Report*, D.E.S., 1973.

PERSONAL INCOME AND COST OF LIVING

Total Personal Income rose 7.21% in 1972, with per capita figures increasing 6.75%, in both cases an improvement over 1971 statistics. (Figure 20) Massachusetts citizens enjoy a higher personal income per capita than the national average—which in 1972 was \$4,478, — 8% below that of the state average of \$4,870.

FIGURE 20
PERSONAL INCOME
1962-1972
(Dollar figures in millions)

<u>Year</u>	<u>Massachusetts Total</u>	<u>Per Capita</u>
1962	\$ 13,878	\$ 2,637
1963	14,514	2,716
1964	15,392	2,825
1965	16,421	2,985
1966	17,715	3,200
1967	19,286	3,448
1968	21,049	3,747
1969	22,926	4,058
1970	24,750	4,343
1971	26,285	4,562
1972	28,181	4,870

Source: *Survey of Current Business*, April, 1973, Supplement on "Sensitivity of State and Regional Income to National Business Cycles", U.S. Department of Commerce, Bureau of Economic Analysis.

For the past three years workers in Massachusetts have received larger paychecks, with increases averaging 7.5%. (Figure 21) However, the U.S. Department of Labor reports that, in general, wages in Boston have registered the lowest amount on increase since 1967. Professional salaries as well have risen less: 5.3%-1972; 6.7%-1971; 5.7%-1966-1971 average. Earnings of employees on nonagricultural payrolls once again rose, up .69% after a drop of 1.13% the previous period. Transportation and public utilities and government sectors made the largest gains in employee earnings for 1972, with the former increasing 2.79%; the latter, 2%. The reduction in manufacturing earnings was held to .4%, as opposed to -7.10% in 1971. (Figure 23)

FIGURE 21
GROSS HOURS AND EARNINGS
PRODUCTION WORKERS ON MANUFACTURING PAYROLLS
1970-1972

	<u>1972</u>	<u>Percent Change</u>	<u>1971</u>	<u>Percent Change</u>	<u>1970</u>
AVERAGE WEEKLY EARNINGS					
Massachusetts-Total	\$146.37	8.62%	\$134.75	6.42%	\$126.62
Boston	160.00	8.56	147.38	6.84	137.94
AVERAGE WEEKLY HOURS					
Massachusetts-Total	40.1	1.78	39.4	.51	39.2
Boston	40.1	2.04	39.3	—	39.3
AVERAGE HOURLY EARNINGS					
	\$3.65	6.73	\$3.42	5.88	3.23
Boston	3.99	6.40	3.75	6.84	3.55

Source: Compiled and Computed from *Employment and Earnings*, U.S. Department of Labor, Bureau of Labor Statistics, May, 1973, p. 139.

FIGURE 22
MONTHLY AVERAGE HOURS AND EARNINGS
MANUFACTURING EMPLOYEES
UNITED STATES AND MASSACHUSETTS
1971-1972

	<u>United States</u>	<u>Massachusetts</u>
Average Weekly Hours:		
Monthly Average, 1972	40.6	40.1
Monthly Average, 1971	39.9	39.4
Average Hourly Earnings:		
Monthly Average, 1972	\$3.80	\$3.65
Monthly Average, 1971	3.56	3.42

Source: *New England Economic Indicators*, Federal Reserve Bank of Boston, February, 1973.

FIGURE 23
ANNUAL AVERAGES
EARNINGS OF EMPLOYEES ON NONAGRICULTURAL PAYROLLS
BY INDUSTRIAL DIVISION
1970-1972
(000's omitted)

	<u>1972</u>	<u>Percent Change</u>	<u>1971</u>	<u>Percent Change</u>	<u>1970</u>
Total	2,266.7	.69%	2,255.1	1.13%	2,280.9
Contract Construction	99.9	-.40	100.3	.20	100.1
Manufacturing	600.9	-.40	604.3	7.10	650.5
Transportation & Public Utilities	121.5	2.79	118.2	.34	117.8
Wholesale & Retail Trade	298.6	—	498.6	.40	496.6
Financial, Insurance, and Real Estate	129.1	.08	129.0	-.39	129.5
Services	478.5	.93	474.1	1.63	466.5
Government	337.2	2.00	330.6	3.34	319.9

Data adjusted to 1970 benchmark levels.

Source: Compiled and computed from *Employment and Earnings*, U.S. Department of Labor, Bureau of Labor Statistics, May, 1973, p. 130-131.

Cost of Living

Prices continued to climb to new highs during 1972, food prices leading the way with a jump amounting to four times the 1971 increases. Retail prices in general rose 3.2% for the first ten months of 1972, up .1% from the same period in 1971. The slowing upward trend which began in 1970 thus continues, reducing the increase two percentage points over the 1969 figure of 5.2%. The Economic Stabilization Program is credited with this braking effect and also blamed for the large increase in food prices, since some agricultural products were exempt from controls.

Changes in local prices were generally greater than those of the U.S. as a whole. Food prices in Boston increased 1.6% more than for the country; apparel was up 4.8% for the city, 3.4% for the large city national average. (Figure 24)

FIGURE 24
PRICE INCREASES-BOSTON

<u>Item</u>	<u>% Change 1971 vs. 1972</u>	<u>% Change 1962 vs. 1972</u>
Food	5.4%	42%
Apparel	4.8%	36%
Housing Costs	2.7%	48%
Home Ownership	1.9%	
Rent	4.2%	
Transportation	0.7%	31%
Health & Recreation	2.0%	45%

Source: Compiled from *New England Labor and the Economy at the Year-End 1972*, Regional Report 73-1, U.S. Department of Labor, Bureau of Labor Statistics.

The Consumer Price Index (CPI) for all items climbed still higher in 1972-1973, with the National City Average reaching 132.7 in July of 1973, an increase of 11.4 since 1971 and 7.4 since December of 1972. Boston's CPI has kept pace with the National City Average, and remains at a slightly higher level: 134.1 versus 132.7 for July. Where the national figure rose 14.1% from 1970 to mid-1973, the Boston CPI rose 15.1%. (Figure 25)

FIGURE 25

CONSUMER PRICE INDEX
ALL ITEMS
1950-1973
(1967=100)

<u>Year</u>	<u>National City Average</u>	<u>Percent Change</u>	<u>Boston SMSA</u>	<u>Percent Change</u>
1950	72.1	—	69.5	—
1955	80.2	11.23%	76.6	10.22%
1960	88.7	10.60	86.5	12.92
1963	91.7	3.38	91.4	5.66
1964	92.9	1.31	92.7	1.42
1965	94.5	1.72	94.5	1.94
1966	97.2	2.86	97.7	3.39
1968	104.2	7.20	104.1	6.55
1969	109.2	5.37	110.0	5.67
1970	116.3	5.92	116.5	5.91
1971	121.3	4.30	122.7	5.32
1972	125.3	3.30	127.1	3.59
1973 (July)	132.7	5.91	134.1	5.51

Source: Bureau of Labor Statistics, U.S. Dept. of Labor.

Boston's CPI for food recorded a large increase—124.0 in July of 1972 to 139.4 in July of 1973, or 12.42%. The largest gain occurred in the period January to July, 1973 (129.7 to 139.4).

In general it costs more to live in Boston than in most other cities in the United States. A family of four in the intermediate budget category can expect to spend \$12,819, higher than 38 cities. San Francisco tops Boston in the lower standard budget classification, and New York City passes it for the higher standard budget.

BUSINESS ACTIVITY

Massachusetts' Business Activity Index rose 4% during 1972, up from 107.2 to 111.5 (1967=100). This is a considerable improvement, since in 1971 the Index decreased almost 1%. The first and fourth quarters were the strongest for the state, and the upward trend continues into the first quarter of 1973, at which time the Index reached 119.2. However, 1973's second quarter indicators show a slowdown in activity, with the Business Activity Index slipping steadily during the three-month period to 115.8.

In the Boston SMSA business activity increased 3.8% for 1972 (to 119.0). Contrary to activity patterns in the state as a whole, the rate for the area grew slowly after a weak first quarter, the last quarter being the only one in which manufacturing and nonmanufacturing employment increased. Retail sales were slow for the first nine months of 1972. A Business Activity Index increase of 3%, to 121.8 for the first quarter of 1973, and 122.3 for the second, were the seventh and eighth consecutive quarterly gains for the city.

The rising business activity in the manufacturing sector is attributed not to higher employment rates but to increased work hours and/or productivity. Manufacturing employment rose about 1%, an improvement over 1971's loss of 6%.

Labor turnover for the state remained at the 1971 level of 3.9 per 100 for total separation, while the new hires and total accession rates increased. (Figure 26)

FIGURE 26
LABOR TURNOVER IN MANUFACTURING
1970-1972
(Rates given per 100)

	Accession Rates						Separation Rates					
	Total			New Hires			Total			Quits		
	1972	1971	1970	1972	1971	1970	1972	1971	1970	1972	1971	1970
Massachusetts	3.9	3.5	3.8	3.0	2.3	2.6	3.9	3.9	4.9	2.1	1.7	2.2
Boston	3.4	3.1	3.6	2.5	2.1	2.5	3.5	3.6	4.7	1.8	1.5	2.1
										1.0	1.4	1.8
										1.0	1.5	1.7

Source: *Employment and Earnings*, U.S. Department of Labor, Bureau of Labor Statistics, May, 1973, p. 143.

Value-added by manufacturing has decreased .81% from 1969-1971, as Figure 27 indicates.

FIGURE 27
VALUE ADDED BY MANUFACTURING
1961-1971
(dollar figures in millions)

<u>Year</u>	<u>Amount</u>	<u>Percent Change</u>
1961	\$6,223.3	—
1962	6,522.4	4.81%
1963	6,403.8	-1.82
1964	6,821.2	6.52
1965	7,449.8	9.22
1966	8,378.2	12.46
1967	8,715.0	4.02
1968	9,056.0	3.91
1969	9,572.4	5.70
1970	9,567.4	-.05
1971	9,494.6	-.76

Source: Compiled from *Annual Survey of Manufactures*, 1971, U.S. Department of Commerce, Bureau of Labor Statistics.

A loss of one Massachusetts-based company from the Fortune 500 was recorded in 1972, with a corresponding increase in the second largest 500 industrial corporations; seven are in the top 500, and 23 are in the second group. Of these thirty companies, nine rose, eighteen fell, and three remained the same in the rankings.

PUBLIC ASSISTANCE

Massachusetts ranks fourth in the nation in spending on public assistance, on a per capita basis. These expenditures for 1972 were \$142.51, which places the state 60% higher than the national average. Topping Massachusetts were New York (\$203.23), Washington, D.C. (\$171.63) and California (\$144.57).

In keeping with the state expenditure reviews introduced by Governor Sargent, total assistance payments increased only 13.81%, down from 28.42% in the preceding year. The biggest rise was in the area of Disability Assistance—27.48%; the smallest, General Relief (5.05%). (Figures 28,29) Total caseload decreased 1.17% during Fiscal 1972. (Figures 30,31)

FIGURE 28

PUBLIC ASSISTANCE
PAYMENTS TO OR FOR PUBLIC ASSISTANCE RECIPIENTS BE PROGRAM
FISCAL YEARS 1962-1972

Fiscal Year	All Programs	Old Age Assistance	Medical Assistance for the Aged	Medical Assistance	Aid to Families with Dep. Children	Disability Assistance	General Relief
1962	\$162,550,912	\$62,254,310	\$41,780,116	—	\$34,829,807	\$16,010,193	\$7,676,486
1963	170,475,924	59,426,102	46,383,306	—	39,777,175	16,982,825	7,906,516
1964	185,924,089	59,049,737	50,105,913	—	47,584,601	18,810,171	10,373,667
1965	202,312,310	57,962,109	58,394,652	—	54,234,714	22,099,452	9,621,383
1966	222,342,038	57,478,058	69,429,256	—	60,902,016	25,326,567	9,206,141
1967	258,681,901	50,061,575	—	\$112,691,656*	69,409,350	16,092,280	10,427,040
1968	358,817,331	47,636,549	—	189,918,779	91,674,748	15,850,142	13,737,113
1969	452,498,633	56,406,818	—	226,921,568	128,096,621	19,698,396	21,375,230
1970	563,952,574	76,986,610	—	252,931,893	172,765,693	25,190,231	36,078,147
1971	724,234,115	85,315,207	—	304,840,298	245,096,301	32,360,222	56,622,087
1972	824,237,983	100,281,656	—	348,829,157	274,393,966	41,253,109	59,480,095

*Includes \$12,305,802 for two months of payments for Medical Assistance for the Aged.

Source: Department of Public Welfare

FIGURE 29
PUBLIC ASSISTANCE PAYMENTS
1962-1972

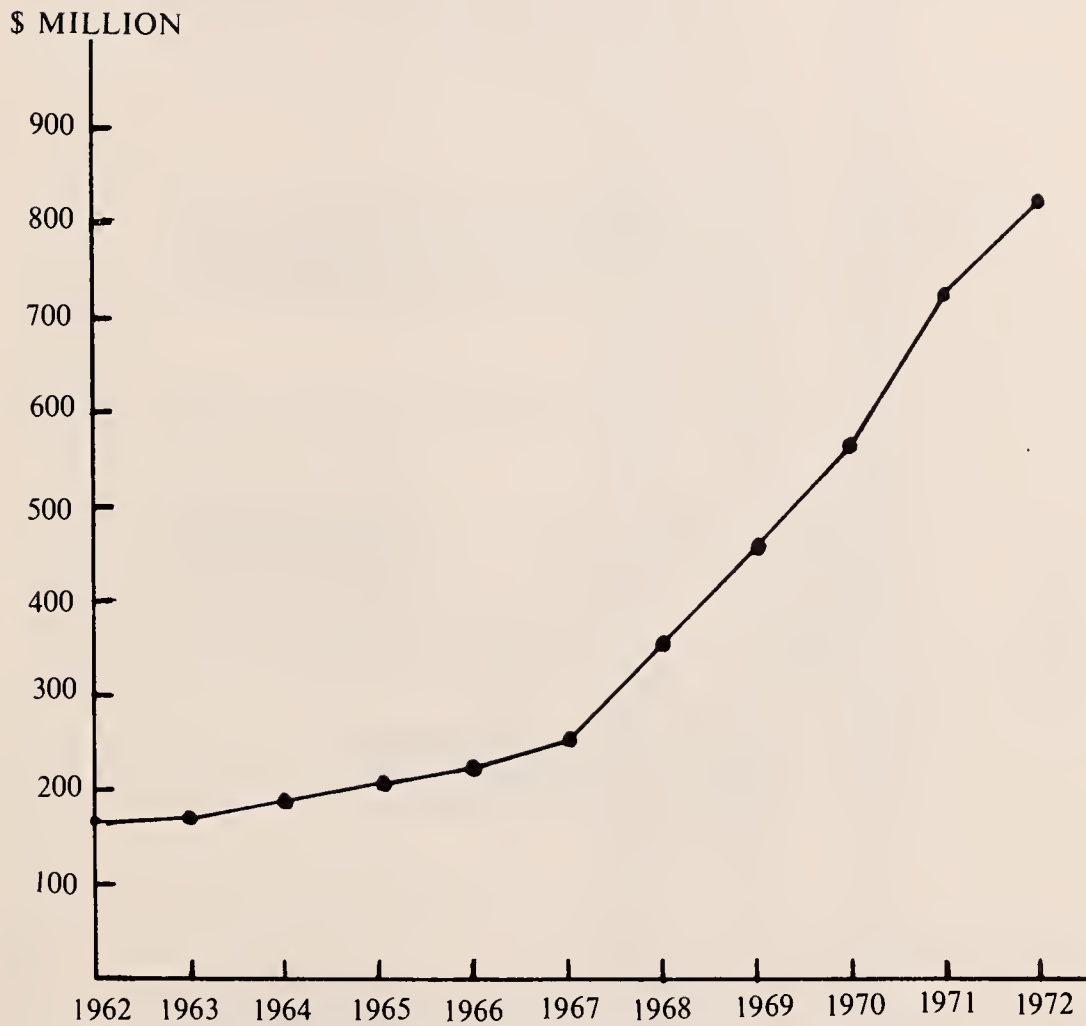


FIGURE 30

PUBLIC ASSISTANCE
MONTHLY AVERAGE OF PUBLIC ASSISTANCE CASES RECEIVING AID BY
PROGRAM
FISCAL YEARS 1962-1973

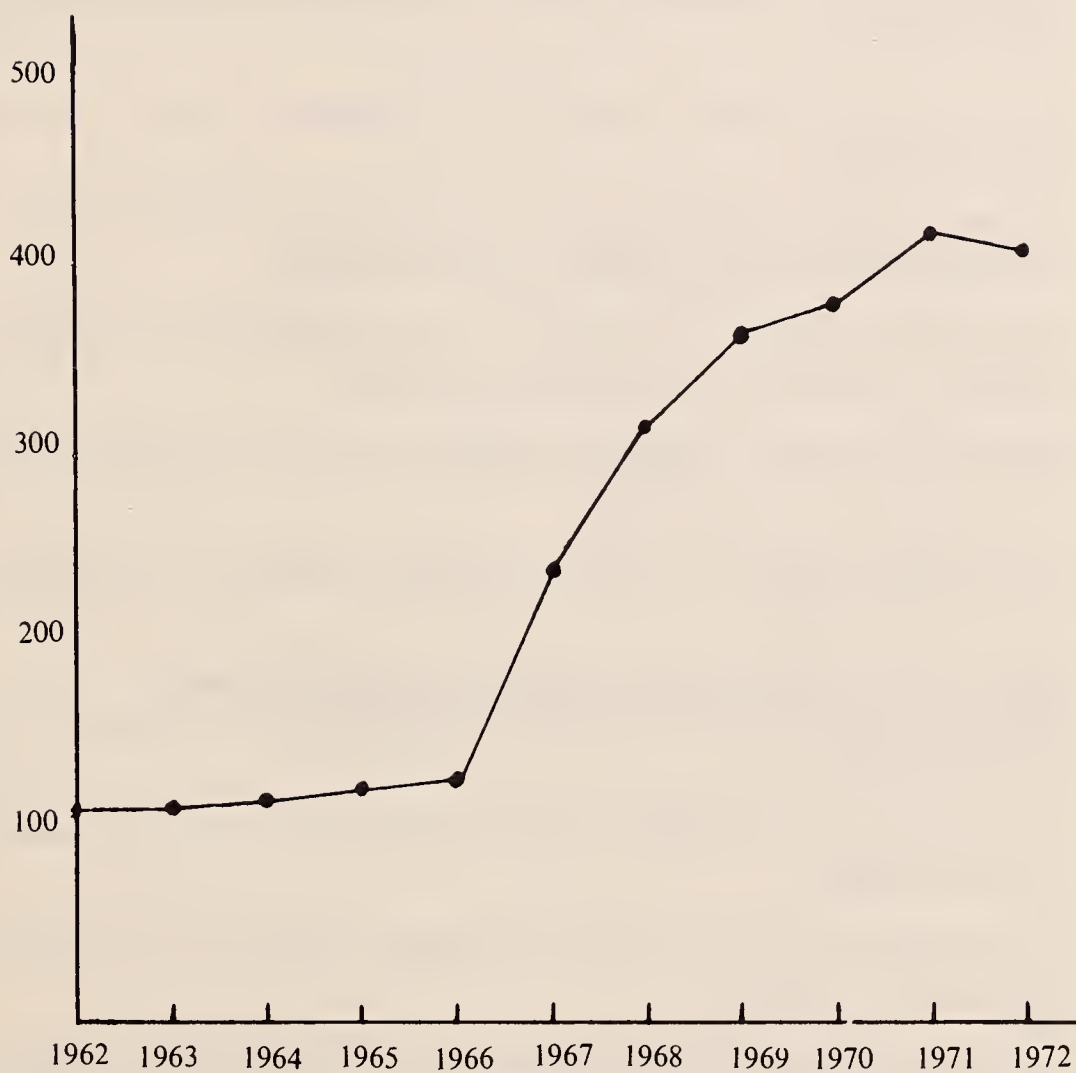
Fiscal Year	All Programs	Old Age Assistance	Medical Assistance For The Aged	Medical Assistance	Aid to Families with Dep. Children	Disability Assistance	General Relief
1962	113,909	60,641	17,910	—	17,765	9,919	7,764
1963	115,301	56,931	20,946	—	19,434	10,273	7,717
1964	119,463	54,214	23,705	—	21,935	10,819	8,790
1965	124,546	51,921	27,064	—	24,491	12,268	8,802
1966	128,038	49,490	29,971	—	26,693	13,304	8,580
1967	240,032	49,583	30,627*	108,346**	29,725	13,299	8,452
1968	314,470	48,855	—	203,954	36,974	14,211	10,476
1969	362,263	50,481	—	237,263	45,857	15,391	13,271
1970	378,212	55,347	—	229,526	56,932	16,685	19,722
1971	411,592	58,994	—	233,208	71,016	18,951	29,423
1972	406,765	57,127	—	226,358	79,618	21,862	21,800

* Two Month Average

** Ten Month Average

Source: Department of Public Welfare

FIGURE 31
AVERAGE MONTHLY CASELOAD
1962-1972



BIBLIOGRAPHY

WORK FORCE, EMPLOYMENT, AND UNEMPLOYMENT

Annual Manpower Planning Report, January 1973, Massachusetts Division of Employment Security.

Current Employment Series of the U.S. Department of Labor, Bureau of Labor Statistics.

Employment and Earnings, May, 1973, U.S. Department of Labor, Bureau of Labor Statistics.

Geographic Profile of Employment and Unemployment, 1972, Report 421, U.S. Department of Labor, Bureau of Labor Statistics.

Massachusetts Trends in Employment and Unemployment, published monthly by the Division of Employment Security.

Monthly Labor Review, published monthly by the U.S. Department of Labor, Bureau of Labor Statistics.

New England Economic Indicators, published monthly by the Federal Reserve Bank, Boston.

WAGES, PERSONAL INCOME, AND THE COST OF LIVING

Employment and Earnings, May, 1973, U.S. Department of Labor, Bureau of Labor Statistics.

Monthly Labor Review, February 1973, U.S. Department of Labor, Bureau of Labor Statistics.

New England Economic Indicators, published monthly by the Federal Reserve Bank of Boston.

New England Labor and the Economy at the Year-End 1972, Regional Report 73-1, U.S. Department of Labor, Bureau of Labor Statistics.

Survey of Current Business, published monthly by the U.S. Department of Commerce, Bureau of Economic Analysis.

BUSINESS CONDITIONS

Annual Survey of Manufactures, 1971, U.S. Department of Commerce, Bureau of the Census.

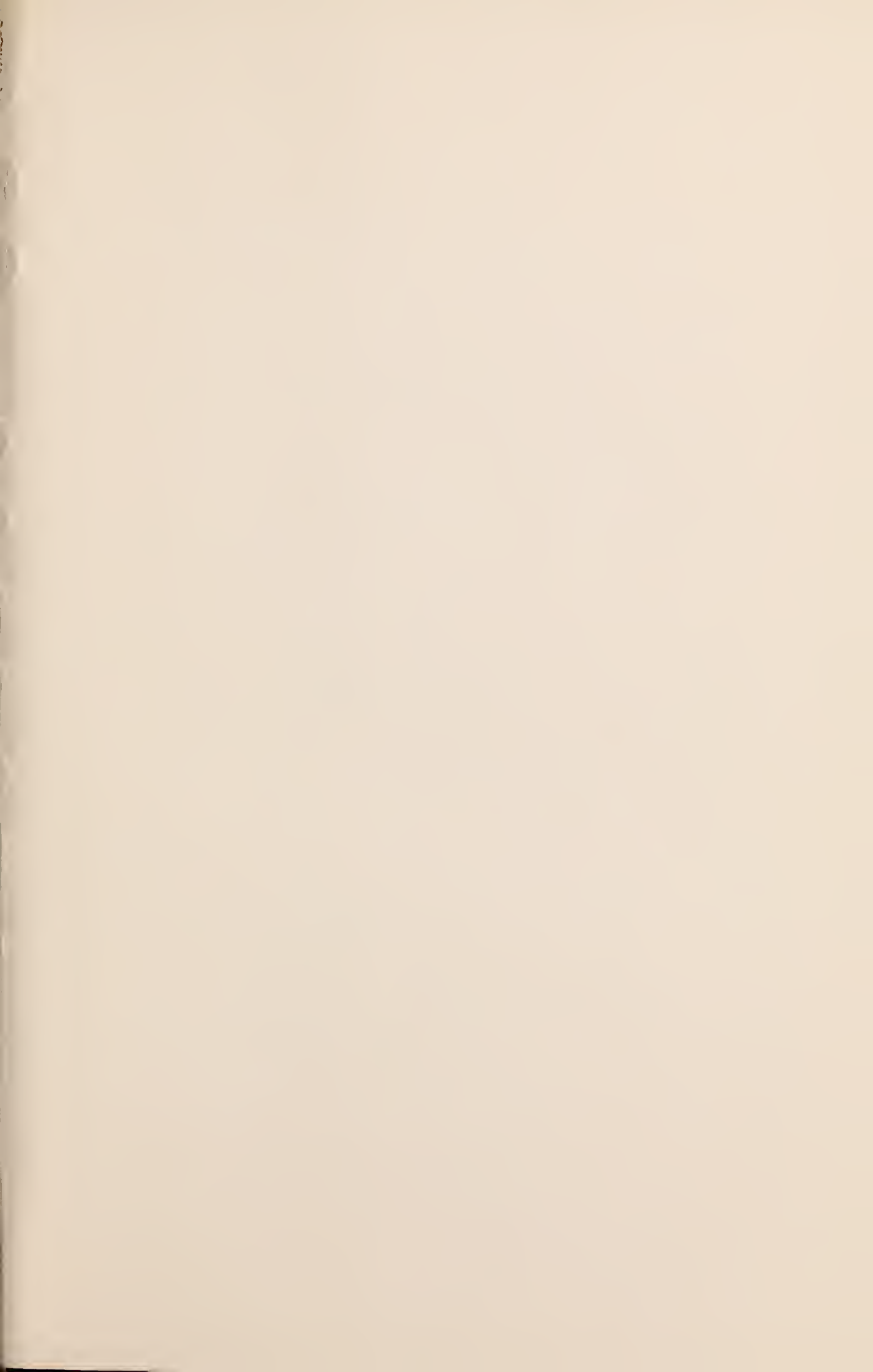
Business Conditions, published quarterly by New England Telephone Company. 5969 030

Fortune Magazine, May, June, July, 1973.

PUBLIC ASSISTANCE

Annual Report, Fiscal Year 1972, Department of Public Welfare.

Campbell, Kenneth D., and Lenzner, Robert, "Five Years Late—With \$3.8 Billion Spent—Welfare Department Mends Leaks," *Boston Globe*, April 16, 1973.





ACME
BOOKBINDING CO., INC.

JUN 22 1960

100 CAMBRIDGE STREET
CHARLESTOWN, MASS.



